**(pubmed.gov)**

- PubMed® is a database developed by the National Center for Biotechnology Information (NCBI) at the National Library of Medicine (NLM) available on the Web.

- PubMed is one of several databases under NCBI's Entrez retrieval system.

- PubMed, a database of over 15 million bibliographic citations back to the 1950s provides access, free of charge, to MEDLINE®.

- PubMed also has links to the full-text of articles at participating publishers' Web sites, biological data, sequence centers, etc. from third parties.

- PubMed provides links to the integrated molecular biology databases maintained by NCBI. These databases contain: DNA and protein sequences, genome mapping data, and 3-D protein structures, aligned sequences from populations, and the Online Mendelian Inheritance in Man (OMIM).

Interrelationships between Entrez Databases

- Links between MEDLINE records and sequence records make it easy to find MEDLINE abstracts associated with sequence records and vice versa.

- The following diagram illustrates the relationships between some of the information resources in Entrez:
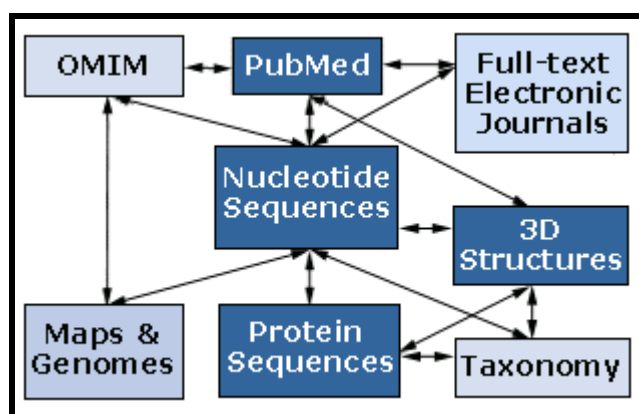
Publisher Supplied Citations

- These are citations that are supplied electronically by publishers directly to PubMed. The citations are then forwarded to NLM's Index Section to be processed. (Not all citations are supplied electronically).

- Citations received electronically have the status tag: **[PubMed - as supplied by publisher**].

Sample PubMed citation that was submitted electronically but processing has not yet begun:

Notice the [PubMed – as supplied by publisher] status tag.

LiCalsi C, Maniaci MJ, Christensen T, Phillips E, Ward GH, Witham C.

A powder formulation of measles vaccine for aerosol delivery.
Vaccine. 2001 Mar 21;19(17-19):2629-2636.
PMID: 11257402 [PubMed - as supplied by publisher]

In Process

- These citations are being reviewed for inclusion in MEDLINE and, if in scope, subsequently are indexed with MeSH® vocabulary. In addition the bibliographic data in these records is being checked for accuracy.

- In process records carry the status tag: **[PubMed – in process].**

- In process records are added to PubMed Tuesday-Saturday.

Sample of an In Process citation in PubMed:

Notice the [PubMed – in process] status tag.

LiCalsi C, Maniaci MJ, Christensen T, Phillips E, Ward GH, Witham C.

A powder formulation of measles vaccine for aerosol delivery.
Vaccine. 2001 Mar 21;19(17-19):2629-36.
PMID: 11257402 [PubMed - in process]

MEDLINE

- This is NLM's premier bibliographic database covering the fields of medicine, nursing, dentistry, veterinary medicine, the health care system, the preclinical sciences, and other areas of the life sciences.

- MEDLINE records contain bibliographic citations and in most cases author abstracts from more than 4,800 biomedical journals published in the United States and 70 other countries.

- Although most records are from English-language sources or have English abstracts.

- Approximately 76% of MEDLINE records include abstracts as they appear in the journal.

- MEDLINE has 13 million records from 1966 to the present.

- MEDLINE records are added to PubMed Tuesday-Saturday.

- After MeSH terms (NLM's controlled vocabulary terms) and other indexing terms are added, the in process citations graduate to MEDLINE records. These "completed" records have also been checked for bibliographic accuracy.

- Fully indexed MEDLINE records carry the status tag **[PubMed – indexed for MEDLINE].**

Sample MEDLINE citation in PubMed

Notice the [PubMed – indexed for MEDLINE] status tag.

LiCalsi C, Maniaci MJ, Christensen T, Phillips E, Ward GH, Witham C.

A powder formulation of measles vaccine for aerosol delivery.
Vaccine. 2001 Mar 21;19(17-19):2629-36.
PMID: 11257402 [PubMed - indexed for MEDLINE]

OLDMEDLINE CITATIONS

- These citations are to articles from international biomedical journals covering the fields of medicine, preclinical sciences, and allied health sciences.

- The over 1.7 million OLDMEDLINE citations, which do not include abstracts, were originally printed in hardcopy indexes published from 1950 through 1965.

- OLDMEDLINE citations have been created using standards that are different from the data entry standards for MEDLINE records. There are also variations among OLDMEDLINE citations in the data fields present as well as in their format, depending on the original source from which the citations were obtained.

- OLDMEDLINE citations lack the accumulated changes and improvements that have been made to data in MEDLINE during annual maintenance.

- OLDMEDLINE records carry the status tag **[PubMed – OLDMEDLINE for Pre1966**]

Sample OLDMEDLINE citation in PubMed

☐ **1:** RUCKLE G, ROGERS KD.   Related Articles, Links

Studies with measles virus. II. Isolation of virus and immunologic studies in persons who have had the natural disease.
J Immunol. 1957 May;78(5):341-55. No abstract available.
PMID: 13449323 [PubMed - OLDMEDLINE for Pre1966]

Non-MeSH Indexed Citations

- Some citations received electronically from publishers never become MEDLINE citations.
- These records are not indexed with MeSH terms.
- These records have either the status tag **[PubMed]** or **[PubMed – as supplied by publisher]** and remain in PubMed but are not MEDLINE citations.
- There are three sources of these types of records:

1. Out-of-scope articles from selectively indexed MEDLINE journals

- This may occur when a particular article in a selectively indexed journal is out-of-scope for MEDLINE (such as a geology article in a general scientific journal like *Science* or *Nature*).
- These citations have been reviewed for accurate bibliographic data.
- The status tag **[PubMed]** appears on these citations.

Sample citation for an article that is out of scope for MEDLINE:

Notice the [PubMed] status tag.

> □ 1: Preston LA, Creager KC, Crosson RS, Brocher TM, Trehu AM.   Related Articles, Links
>
> Intraslab earthquakes: dehydration of the Cascadia slab.
> Science. 2003 Nov 14;302(5648):1197-200.
> PMID: 14615535 [PubMed]

Sample citation for an article from the same journal issue that *is* indexed for MEDLINE:

Notice the [PubMed-indexed for MEDLINE] status tag.

> □ 1: Ule J, Jensen KB, Ruggiu M, Mele A, Ule A, Darnell RB.   Related Articles, Links
>
> CLIP identifies Nova-regulated RNA networks in the brain.
> Science. 2003 Nov 14;302(5648):1212-5.
> PMID: 14615540 [PubMed - indexed for MEDLINE]

2. Articles from issues of journals published prior to selection for MEDLINE indexing

- These earlier citations will not be indexed with MeSH headings.
- Prior to late 2003:
    - ► the citations were *not* reviewed for accurate bibliographic data
    - ► the status tag of **[PubMed – as supplied by publisher]** appears
- Beginning in late 2003:
    - ► the citations have been reviewed for accurate bibliographic data
    - ► the status tag of **[PubMed]** appears

Example: NLM began indexing the journal, *The Neurologist* with v. 9, no. 1, 2003. However, the publisher electronically supplied NLM with citations from earlier volumes. The citations from back volumes were entered into PubMed but will not be indexed with MeSH.

Notice the [PubMed] status tag from an item from vol. 8, 2003.

```
☐ 1: Dobbs BM, Carr DB, Morris JC.                          Related Articles, Links

      Evaluation and management of the driver with dementia.
      Neurologist. 2002 Mar;8(2):61-70.
      PMID: 12803692 [PubMed]
```

Notice the [PubMed – indexed for MEDLINE] status tag on an item from volume 9, 2003.

```
☐ 1: Becker D, Sadowsky CL, McDonald JW.                    Related Articles, Links

      Restoring function after spinal cord injury.
      Neurologist. 2003 Jan;9(1):1-15. Review.
      PMID: 12801427 [PubMed - indexed for MEDLINE]
```

Take Note: Indexing information for a particular journal can be found in the "Indexed In" field in the NLM Catalog. Use PubMed's Journals Database to link to this information.

3.   Articles from non-MEDLINE journals

- Beginning in July 2005:
  - ► the citations have been reviewed for accurate bibliographic data
  - ► the status tag of **[PubMed]** appears

```
☐ 1: Bucher P, Chassot G, Zufferey G, Ris F, Huber O, Morel P.    Related Articles, Links

      Surgical management of abdominal and retroperitoneal Castleman's
      disease.
      World J Surg Oncol. 2005 Jun 7;3(1):33.
      PMID: 15941478 [PubMed]
```

Take Note: See next page for a Citation Status Tags Summary Table.

PubMed Citation Status Tags
Summary Table

Citation Status Tag Value	Condition(s)	MeSH-indexed?	Biblio-graphic data checked?	How to search
[PubMed – as supplied by publisher]				
	• Citations supplied electronically when first received. • Citations from issues of journals published before. • journal selected for MEDLINE indexing (records received prior to late 2003). • Citations from non-MEDLINE journals (records received prior to June 2005).	No	No	publisher [sb]
[PubMed – in process]				
	• Citations in review for inclusion in MEDLINE.	No	No	in process [sb]
[PubMed – indexed for MEDLINE]				
	• Fully indexed citations.	Yes	Yes	medline [sb]
[PubMed – OLDMEDLINE for Pre1966]				
	• Citations originally printed in hardcopy indexes published from 1953 through 1965.	No	Yes	oldmedline [sb]
[PubMed]				
	• Out-of-scope articles from selectively indexed MEDLINE journals. • Since late 2003, citations from issues of journals published prior to selection for MEDLINE indexing. • Since June 2005, citations from non-MEDLINE journals.	No	Yes	pubmednotmedline [sb]

PubMed's Home Page
The Sidebar

About Entrez – Click here to find out more about NCBI's Entrez databases.

Text Version - specifically for users who require special adaptive equipment to access the Web and use PubMed.

Entrez PubMed

- The **Overview** provides a detailed description of the PubMed database including database coverage and PubMed journal information.
- Click on **Help** for explanations of all the features and search and retrieval options within PubMed. **FAQs** are frequently asked questions and answers about PubMed.
- Click on **Tutorial** for a Web-based, interactive training program for PubMed.
- **New/Noteworthy** provides information about PubMed system enhancements.
- **E-Utilities** are tools that provide access to Entrez data outside of the regular web query interface.

PubMed Services

- Use the **Journals Database** to search for journals. The list of journals with links to full-text is also included in the browser.
- The **MeSH Database** allows you to find and select terms from the MeSH Vocabulary.
- The **Single Citation Matcher** allows you to locate a specific article.
- The **Batch Citation Matcher** is a tool for publishers.
- The **Clinical Queries** page was designed for clinicians and has built-in search "filters" including systematic reviews.
- The **Special Queries** link provides access to a directory of topic-specific PubMed queries.
- **LinkOut** provides users with links from PubMed and other Entrez databases to a wide variety of relevant web-accessible online resources including full-text publications.
- **My NCBI** allows you to store search strategies to get updates – including automatic e-mailed updates. This feature also lets you set filters to group your retrieval by topics of interest to you.

Related Resources

- **Order Documents** is a link to the Loansome Doc feature to order full-text copies of articles from a local medical library (local fees and delivery methods may vary).
- Click on **NLM Catalog** to access NLM bibliographic data for journals, books, audiovisuals, computer software, electronic resources, and other materials.
- Click on the **NLM Gateway** to access NLM's other Web-based service that also provides access to PubMed/MEDLINE and additional NLM databases.
- **TOXNET** has databases on toxicology, hazardous chemicals, and related areas.
- **Consumer Health** is a link to MedlinePlus, NLM's Web site for consumer health information.
- **Clinical Alerts** expedite the release of findings from the NIH-funded clinical trials that could significantly affect morbidity and mortality.
- Click on **ClinicalTrials.gov** to access the NIH/NLM Web site to locate clinical research studies open to participation.
- **PubMed Central** is an archive of life science journals. Access is free and unrestricted.

About Entrez

Text Version

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PubMed Services
Journals Database
MeSH Database
Single Citation Matcher
Batch Citation Matcher
Clinical Queries
Special Queries
LinkOut
My NCBI (Cubby)

Related Resources
Order Documents
NLM Catalog
NLM Gateway
TOXNET
Consumer Health
Clinical Alerts
ClinicalTrials.gov
PubMed Central

The Footnote

> Write to the Help Desk
> NCBI | NLM | NIH
> Department of Health & Human Services
> Privacy Statement | Freedom of Information Act | Disclaimer

- Click on **Write to the Help Desk** to send an e-mail message to NLM Customer Service.

- Click on **NCBI, NLM, NIH** or **Department of Health & Human Services** to access the Web pages of the agencies responsible for the creation and maintenance of PubMed.

- Click on **Privacy Statement** to read NLM Privacy Policy

- Click on **Freedom of Information Act** (FOIA) to access the NIH FOIA Home Page.

- Click on **Disclaimer** to read copyright and disclaimer statement.

<u>N</u> <u>O</u> <u>T</u> E <u>S</u>

How it Works

Subject Searching

Search: *Find citations to articles about having a rash and a fever.*

Entering Search Terms

- Enter significant terms in the query box (e.g., **rash fever**).
- Click on the **Go** button.
- Use the **Clear** button to erase the contents of the query box.

PubMed Automatic Term Mapping

Unqualified terms that are entered in the query box are matched against (in this order):

1. MeSH (Medical Subject Headings) Translation Table
2. Journals Translation Table
3. Full Author Translation table
4. Author Index

1. **MeSH Translation Table** contains**:**

- MeSH Headings
- Subheadings
- Publication Types
- Entry Term mappings (also known as synonyms) for MeSH terms
- Mappings derived from the Unified Medical Language System (UMLS)
- Supplementary Concepts and synonyms to the Supplementary Concepts

If a match is found in this translation table:

- the term will be mapped to the appropriate MeSH term and searched as MeSH
- the searcher's term will be searched as a Text Word.
- In the case of Entry Terms, a "mapped to" MeSH term will also be searched in the title and abstract fields in citations that have yet been assigned MeSH terms

Example:

| rash | Go | Clear |

PubMed's Translation:

("exanthema"[TIAB] NOT Medline[SB]) OR "exanthema"[MeSH Terms] OR rash[Text Word]

- Rash is an Entry Term for the MeSH term, Exanthema.

When a term is searched as a MeSH Heading, PubMed automatically searches that heading and the more specific headings underneath in the hierarchy. This is called exploding a term.

For example, when searched as a MeSH Term, PubMed will search the heading Exanthema as well as the more specific term(s) in the hierarchy:

Exanthema
        Exanthema Subitum

2. **Journals Translation Table** contains**:**

- Full journal title
- MEDLINE abbreviation
- International Standard Serial Number (ISSN)

Example:

| the journal of cell biology | Go | Clear |

PubMed Translation: "J Cell Biol"[Journal]

If a name of a journal also happens to be a MeSH term or a one-word title, it must be searched with a field tag (see the Search Field Descriptions section of this workbook). Otherwise, PubMed will search the term as a MeSH heading and as a Text Word, and the search will ***not*** include the term as a journal name. For example, the search for Science untagged will not search for citations from the journal *Science*.

3. **Full Author Translation Table** includes:

- Full author names for articles published from **2002 forward and to journals that publish using the full names of authors**.

- Full author searching can be entered in natural or inverted order:

    julia s wong
    wong julia s

- When searching a full name using the inverted order, a comma following the last name is generally optional, omit periods after initials, and put all suffixes, e.g., Jr, at the end. For example, to search for the author Bruce J. Herron, you may use any of the following formats:

    herron, bruce j
    herron bruce j
    bruce j herron

- For some names, however, it is necessary to distinguish which name is the last name by using the comma following the last name:

    ryan, james
    james, ryan

- Full author name searching allows for automatic truncation of the forename. If you don't know the middle initial, enter only the last and first names:

  herron bruce

4. Author Index

- If the phrase is not found in the MeSH **or** Journal Translation Tables and even if it is found in the Full Author Name Translation Table, PubMed checks the Author Index for a match.

- Enter the author's name in the form of Last Name (space) Initials:

Examples:
  o'brien jm
  adams sh
  pogonka t

- If only the first initial is used, PubMed automatically truncates the author's name to account for varying initials.

Example:

```
o'brien j                                                              Go  Clear
```

- This search retrieves citations to articles written by o'brien j, o'brien ja, o'brien jz, etc.

Take Note: If only an author's last name is entered, PubMed will search that name in All Fields (Author field plus all other searchable fields). It will not default to the Author Index because the last name is not followed by an initial. Special attention is needed when the last name is the same as a MeSH term (see the Search Field Descriptions section of this workbook).

If no match is found?

- PubMed breaks apart the phrase and repeats the automatic term mapping process until a match is found.

- Terms that don't make a match will be searched in "All Fields." Individual terms will be combined (ANDed) together.

Example:

```
pressure point                                    Go   Clear
```

PubMed Translation:

((pressure [MeSH Terms] OR pressure[Text Word]) AND point[All Fields])

- PubMed breaks apart a long phrase from right to left:

Example:

```
head lice shampoo                                 Go   Clear
```

Searches for:	Results:	Action:
head lice shampoo	No match found	Removes term on right to re-run Automatic Term Mapping process.
head lice	Match found in MeSH Translation Table	***head lice*** *will be searched as* ***("pediculus"[TIAB] NOT Medline[SB]) OR "pediculus"[MeSH Terms] OR head lice[Text Word]***
shampoo	No match found in Translation Tables	***shampoo*** *will be searched as* ***shampoo[All Fields]***

PubMed then combines (ANDs) the terms to produce a single search strategy:

("pediculus"[TIAB] NOT Medline[SB]) OR "pediculus"[MeSH Terms] OR head lice[Text Word]
AND
shampoo[All Fields]

Phrase Searching

- PubMed searches for phrases under these conditions:

1. The phrase is entered with a search tag:
        kidney allograft [tw]

2. The phrase is enclosed in double quotes: (The absence of a search tag indicates the search
    should be conducted in All Fields.)
        "kidney allograft"

3. The term is hyphenated:
        first-line

4. The term is truncated:
        kidney allograft*

Example:

"pressure point"	Go	Clear

PubMed Translation: "pressure point"[All Fields]

- The above formats for phrase searching instruct PubMed to *bypass* automatic term mapping.
  Instead PubMed looks for the phrase in its Index of searchable terms. If the phrase is in the
  Index, PubMed will retrieve citations that contain the phrase.

- PubMed may fail to find a phrase because it is not in the Index.

When you enclose a phrase in double quotes, PubMed will *not* perform
automatic term mapping which includes explosions of MeSH terms. For
example, "health planning " *will* include citations that have the MeSH
heading, Health Planning, but *will not* include the more specific indentations
(e.g., Health Care Rationing, Health Care Reform) that are included with
automatic MeSH mapping and explosion.

Truncation (finding all terms that begin with a given text string):

- Place an asterisk (*) at the end of a string of characters to search for all terms that begin with that string. The asterisk may only be used at the *end* of a string of characters.

Example: mimic* will find all terms that begin with the letters m-i-m-i-c-; e.g., mimic, mimics, mimicing.

- PubMed searches the first 600 variations of a truncated term. If a truncated term, e.g., tox*, produces more than 600 variations, PubMed displays the following warning message on the Results screen in pink near the top of the screen:

-

Wildcard search for 'tox*' used only the first 600 variations. Lengthen the root word to search for all endings.

Truncation turns off automatic term mapping. For example, heart attack* will not map to the MeSH term, Myocardial Infarction or include any of its more specific terms, e.g., Myocardial Stunning.
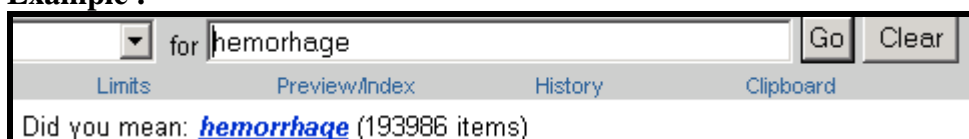
PubMed Stopword List

PubMed also compares each search to a list of commonly found terms that are referred to as "stopwords." Stopwords may be ignored. This list is available in PubMed's Help.

Spell Check Feature

- Suggests alternative spellings for search terms that include misspellings.
- Terms entered with a search tag (e.g., [mh]; [majr]; [tw]) will *not* generate alternative spellings.

Example :

for hemorhage   Go   Clear

Limits   Preview/Index   History   Clipboard

Did you mean: *hemorrhage* (193986 items)

Click on the hyperlinked alternative spelling to generate that search.

- The alternative spellings are not based on a dictionary but rather the frequency with which a term appears in PubMed.
- The spell checking function will not display an alternative spelling for misspellings that have a high frequency of occurrence in PubMed or for terms with numbers or fewer than five characters.

Search Results Screen

Once you click on **Go** or press the Enter key, PubMed will automatically:

- Run the search
- Retrieve and display citations
- Provides option to Save Search via My NCBI feature

The following is the Results screen returned by PubMed for the search example:

Find citations to articles about having a rash and fever.

*Active **query box** displaying current search.*
***Save Search** option via My NCBI*

***Display** options*
***Show** pull-down*
***Sort** options*
***Send to** options*
***All** results tab*
***Review** articles tab*
***Page** options*

Citations are displayed in Summary format.

Icons indicating presence of abstract and/or availability of free full text.

See next page for further explanation.

Results Screen

Query Box containing current search

Search | PubMed ▼ | for | rash fever | Go | Clear

- The query box displays **your** search.
- This box is active; you can modify the current search by adding or eliminating terms.
- Click on the **Clear** button to clear the search in the query box and start a new search.

Action Bar Selections

- These options are available both at the top and bottom of the Results screens.

- The next few workbook pages will explain each function.

Display | Summary ▼ | Show | 20 ▼ | Sort by ▼ | Send to ▼

All: 2779 | Review: 377 ✖

Items 1 - 20 of 2779   Page | 1 | of 139 Next

Display Options

Summary Format
PubMed citations are initially displayed in the **Summary** format.

☐ **1:** Kastan MB, Bartek J.   Related Articles, Links

Cell-cycle checkpoints and cancer.
Nature. 2004 Nov 18;432(7015):316-23. Review.
PMID: 15549093 [PubMed - indexed for MEDLINE]
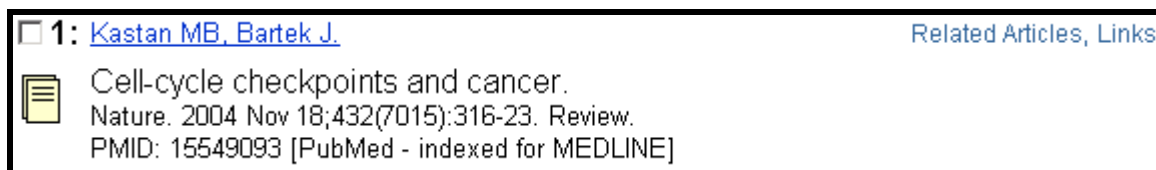
The Summary format may include the following:

- **Author Name(s):** All authors from the record are displayed.
- **Corporate Author:** Identifies the corporate authorship of an article.
- **Links:** Available links such as Related Articles, Protein, Nucleotide, LinkOut, Books, etc.
- **Title of the article:** Most foreign language titles will be translated into English and placed within brackets.
- **Source:** Includes journal title abbreviation, date of publication, volume, issue, and pagination. Mouseover of journal title abbreviation displays full journal title.
- **Abstract/Free Full text icons:**

Search PubMed ▼ for mitochondrial dna humans   Go Clear
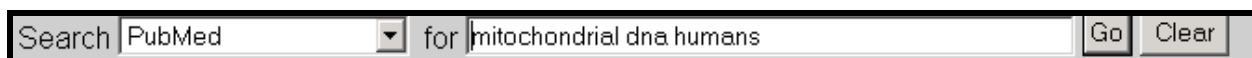
Note the following icons to the right of the retrieved abstracts:

Citation includes no abstract.

Citation includes an abstract.

An icon with an orange and green banner indicates free full text is available from PubMed Central (PMC), NLM's free digital archive of life sciences journal literature. An icon with a green banner indicates there is a link to full text and no payment or subscription is required.

- May also include language (for non-English articles) and Publication Type if the article is a review or retracted publication. Articles without abstracts will display the notation: "No abstract available" and the No Abstract icon.
- Annotations to associated citations (e.g., Errata).
- PubMed Unique Identifier (PMID).
- A status tag: **[PubMed - as supplied by publisher]**, **[PubMed - in process]**, **[PubMed - indexed for MEDLINE],** or **[PubMed]**

Additional Display Options

You can access other display formats from the Results screen in the following manner:

- **Individual Citations:** Clicking on the author name link or the abstract icon link will display the citation in the Abstract display format.
- **All Citations:** Select the format.
- **Selected Citations**: Clicking on the box found to the left of the item number allows you to select one or multiple items. Select desired display format from the pull-down menu.

Other Display Formats

The **Display** pull-down allows the user to select available display formats:
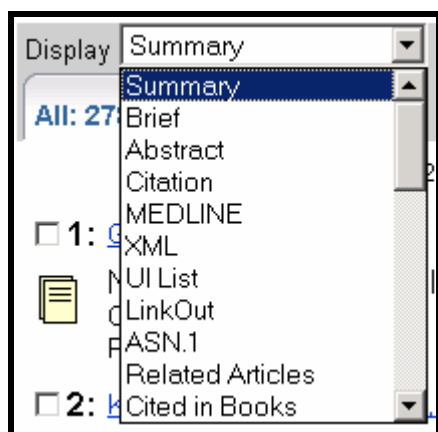
Summary, Abstract, Citation, MEDLINE, and Related Articles are the most appropriate display selections for bibliographic information.

Abstract Format

May include the following information:

- Source (journal title abbreviation - mouseover for full title, date of publication, volume, issue and pagination)
- Title
- On non-English *language* articles, [Article in language] tag
- Author(s) with author names displayed as "search links" to author searches.
- Corporate Author
- Affiliation (address) of first author

- Abstract (if present) from published article

- Publication Types (except for "Journal Article")
- Annotations to associated citations (e.g., errata)

- PMID

- Status tag
- Links

Click on the linked name to run a search for that author name.

Citation Format
May include the following information:

- Source (journal title abbreviation – mouseover for full title, date of publication, volume, issue and pagination)
- Title
- On non-English *language* articles, [Article in language] tag
- Author(s) with author names displayed as "search links" to author searches.
- Corporate Author
- Affiliation (address) of first author
- Publication Types (except for "Journal Article")
- Annotations to associated citations (e.g., errata)

- MeSH Terms
- Personal Name as Subject (if present)
- Chemical substances (if present)
- Grant numbers (if present)
- PMID
- Status tag
- Links
- ClinicalTrials.gov identifier number

Click on the linked name to run a search for that author name.

☐ **1:** Nature. 2004 Nov 18;432(7015):316-23.   Related Articles, Links

nature

Cell-cycle checkpoints and cancer.

Kastan MB, Bartek J.

Department of Hematology-Oncology, St Jude Children's Research Hospital, 332 North Lauderdale Street, Memphis, Tennessee 38105, USA. michael.kastan@stjude.org

All life on earth must cope with constant exposure to DNA-damaging agents such as the Sun's radiation. Highly conserved DNA-repair and cell-cycle checkpoint pathways allow cells to deal with both endogenous and exogenous sources of DNA damage. How much an individual is exposed to these agents and how their cells respond to DNA damage are critical determinants of whether that individual will develop cancer. These cellular responses are also important for determining toxicities and responses to current cancer therapies, most of which target the DNA.

Publication Types:
- Review
- Review, Tutorial

MeSH Terms:
- Animals
- Cell Cycle*
- DNA Damage
- Humans
- Neoplasms/enzymology
- Neoplasms/metabolism*
- Neoplasms/pathology*
- Research Support, Non-U.S. Gov't
- Research Support, U.S. Gov't, P.H.S.
- Signal Transduction*

PMID: 15549093 [PubMed - indexed for MEDLINE]

MEDLINE Format
Two- to four-character tagged field format displaying all fields of the PubMed record.

```
Kastan MB et al. Cell-cycle checkpoints and ca...[PMID: 15549093]     Related Articles, Links


PMID- 15549093
OWN - NLM
STAT- MEDLINE
DA  - 20041119
DCOM- 20041221
PUBM- Print
IS  - 1476-4687
VI  - 432
IP  - 7015
DP  - 2004 Nov 18
TI  - Cell-cycle checkpoints and cancer.
PG  - 316-23
AB  - All life on earth must cope with constant exposure to DNA-damaging agents
      such as the Sun's radiation. Highly conserved DNA-repair and cell-cycle
      checkpoint pathways allow cells to deal with both endogenous and exogenous
      sources of DNA damage. How much an individual is exposed to these agents
      and how their cells respond to DNA damage are critical determinants of
      whether that individual will develop cancer. These cellular responses are
      also important for determining toxicities and responses to current cancer
      therapies, most of which target the DNA.
AD  - Department of Hematology-Oncology, St Jude Children's Research Hospital,
      332 North Lauderdale Street, Memphis, Tennessee 38105, USA.
      michael.kastan@stjude.org
FAU - Kastan, Michael B
AU  - Kastan MB
FAU - Bartek, Jiri
AU  - Bartek J
LA  - eng
PT  - Journal Article
PT  - Review
PT  - Review, Tutorial
PL  - England
TA  - Nature
JID - 0410462
SB  - IM
MH  - Animals
MH  - *Cell Cycle
MH  - DNA Damage
MH  - Humans
MH  - Neoplasms/enzymology/*metabolism/*pathology
MH  - Research Support, Non-U.S. Gov't
MH  - Research Support, U.S. Gov't, P.H.S.
MH  - *Signal Transduction
RF  - 96
EDAT- 2004/11/19 09:00
MHDA- 2004/12/22 09:00
AID - nature03097 [pii]
AID - 10.1038/nature03097 [doi]
PST - ppublish
SO  - Nature 2004 Nov 18;432(7015):316-23.
```

Use this format for downloading records into bibliographic management software programs.

Take Note:

Retrieval Summary

The retrieval summary line displays:
- Total number of citations retrieved by the search **(All tab)**
- Total number of citations from search results that have been assigned the Publication Type, Review (**Review tab**)
- **Tool symbol** (hammer and wrench) to the right of the filter tabs links you to My NCBI where users who are signed in can add or modify their Filter selections. (See My NCBI section of workbook for further information.)
- How many pages of citations there are given the selected number of citations per page (see Show).

Page Selection

- Use links for **Previous** and **Next** to navigate through search results.
- To move to a non-adjacent page, enter the desired page number and then press the **Page** button.
- The current page number is displayed in the Page box.

Show pull-down menu

- PubMed initially displays search results in batches of 20 citations per page.

- Click on the **Show** pull-down menu to select a higher/lower number.
- PubMed redisplays the citations based on your selection.

Sort

- To sort items by author, journal, or publication date, click on the **Sort by** pull-down menu to select a sort field.
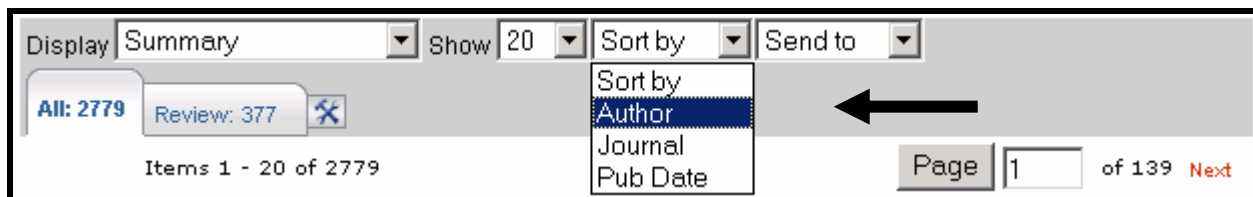
You can sort directly from the results screen, or you can collect citations on the Clipboard and sort the items there.

Send to   File
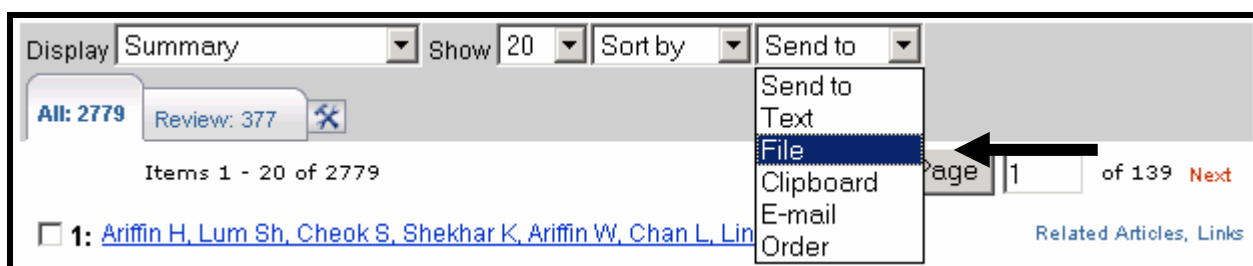
- To save and send your **entire set of search results** to a file, use the Display pull-down menu to select the desired format. Then select **File** from the **Send to** menu. This saves the results in the display format selected.

- To mark **selected citations** to save and send to a file, click on the check-box to the left of the item number as you go through each page of your retrieval. After you have finished selecting citations, choose a display format. Then select File from the Send to menu.

Send to   Text
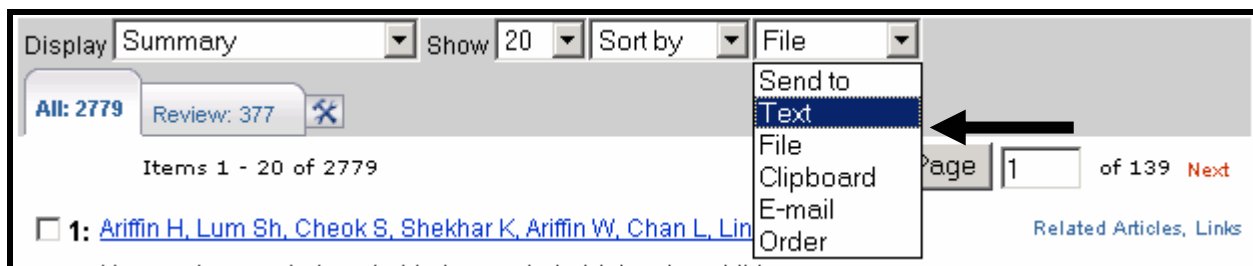
- Use Text to redisplay citations omitting the Web or HTML components.
- Use Text when printing so you don't print PubMed's sidebar and buttons and save paper!
- Text will display either selected citations, or if no citations are selected, all the citations on the page.
- Before using the **Text** option, consider changing the display format and the number of items displayed on each page.
- Select **Text** and from the **Send to** pull-down menu.
- When finished with the Text display, use your Web browser's Back button to return to your results in the regular format.

Printing

- Use the Print function of your Web browser**,** which will print all the information and citations displayed on your Web page.
- Consider using the **Text** button described above.
- Think about changing the display format and using the Show pull-down menu to display all of your citations on one Web page. You can only print the citations from the displayed page.

Send to   Clipboard
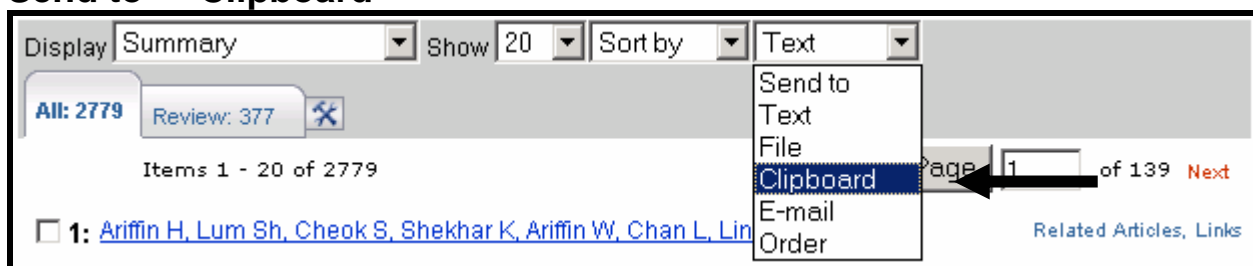
- The Clipboard allows you to collect selected citations from one search or several searches that you may want to print, save, or order.
- The maximum number of items that can be placed in the Clipboard is **500**.
- To place an item in the Clipboard, click on the box to the left of the citation and select **Clipboard** from the Send to menu.
- Once you have added a citation to the Clipboard, the item number color will change.
- Using the Clipboard is discussed in the Feature Tabs Section of this Workbook.

Send to   E-mail
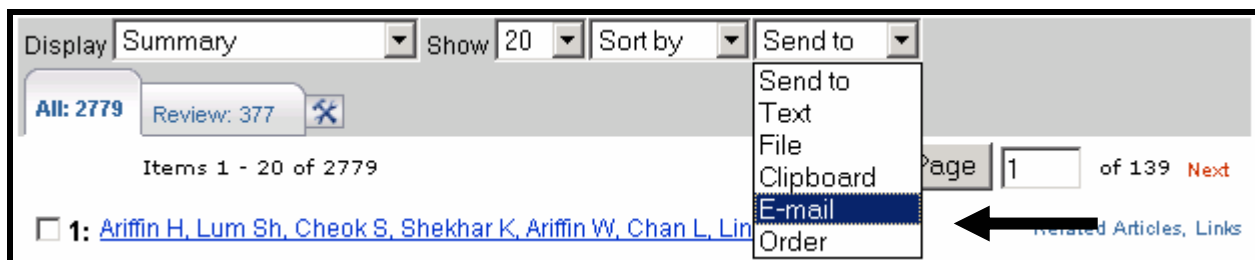
- Select E-mail from the Send to menu.
- You are brought to an options screen:

Settings on the options screen reflect selections on the Results page and can be modified if desired.

Add a message if you wish.

Enter e-mail address.

*Click **Mail** button.*

E-mail Tips:
- ✓ ⱴYou may E-mail up to 500 items.
- ✓ ⱴThe HTML option allows the PubMed e-mail messages to display as a results page with hyperlinks to Related Articles, LinkOut, etc. The recipient's e-mail service must be set for HTML view to allow for proper display.
- ✓ ⱴA default E-mail address may be stored via My NCBI User Preferences.

Send to   Order
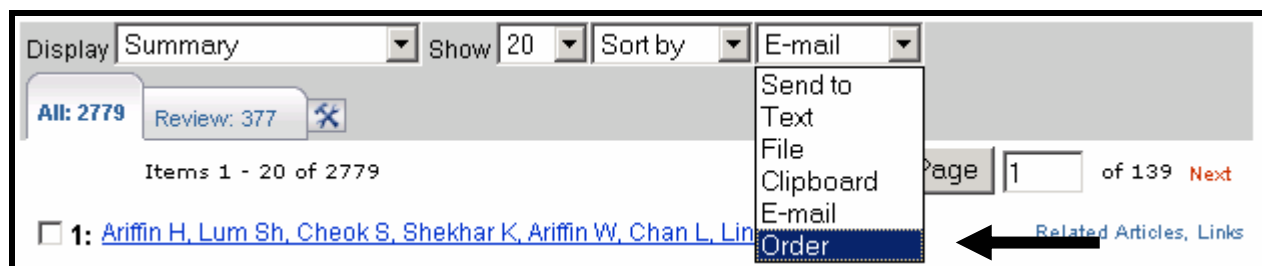
- Select **Order** from the Send to menu to use an automated document ordering program called **Loansome Doc**.

- You can also **Order** directly from the Clipboard.

What is Loansome Doc?

The Loansome Doc feature allows you to order the full-text of an article from a Loansome Doc participating library. Prior to using this feature, you need to establish an agreement with a Loansome Doc participating library. Your Loansome Doc library will provide you with their **Library ID**, which is needed when setting up the service within PubMed or the NLM Gateway.

What does it cost?

The library providing you this service will explain their ordering fees, if any. This service is generally **not** free.

What library can provide me with this kind of service?

Call your Regional Medical Library at **1-800-338-7657** Monday-Friday, 8:30 A.M. – 5:00 P.M. in all time zones to find out which medical library in your area can set you up with the Loansome Doc ordering service. Or visit **http://www.nlm.nih.gov/pubs/factsheets/loansome_doc.html** to find out more about Loansome Doc.

To order articles, select the citations for the articles by clicking on the check-box to the left of each item.

- Select **Order** from the Send to menu.

- You are brought to the page shown below.

On this page you can:

- log into Loansome Doc using your Email address
- obtain a status report of your orders
- update your Loansome Doc account information
- sign up for a Loansome Doc account
- link to FAQs
- learn more about Loansome Doc

Once you have logged in, Loansome Doc brings you to the **Place Order** screen confirming the citations you ordering. Click on the **Proceed to Delivery Options** button at the bottom of the screen.

Click on the **Copyright Compliance** link to read the statement. Then click the checkbox and the **Continue** button.

Next you are brought to the **Confirm Order** screen, which confirms your order. Review the information. Click **Send Order** button at bottom of screen.

Loansome Doc then brings you to the **Order Sent** screen:

Practice Exercises

1. Find references about shingles and facial paralysis. Display the records in the format that shows the abstract and the MeSH headings. How does PubMed map the term, shingles?

2. Find references about hypertension and a nosebleed. How does PubMed map the term, nosebleed? Display all of the retrieved records on one Web page.

3. Find references about genetically modified food. Display the retrieved records in the format where you display the abstract but not the MeSH headings.

4. Are there articles by G. Barrera-Hernandez referenced in MEDLINE?

5. Please find information about wisdom tooth pain. Using the Details screen, determine to what MeSH Heading wisdom tooth maps.

Suggested Answers

1. Find references about shingles and facial paralysis. Display the records in the format that shows the abstract and the MeSH headings. How does PubMed map the term, shingles?

Enter shingles facial paralysis in the query box, click **Go**. Click on **Details** to see that the term shingles maps to the MeSH heading **Herpes Zoster**.

Query Translation:

```
(("herpes zoster"[TIAB] NOT Medline[SB]) OR "herpes
zoster"[MeSH Terms] OR shingles[Text Word]) AND ("facial
paralysis"[MeSH Terms] OR facial paralysis[Text Word])
```

Search   URL

Result:

318

Translations:

facial paralysis	"facial paralysis"[MeSH Terms] OR facial paralysis[Text Word]
shingles	("herpes zoster"[TIAB] NOT Medline[SB]) OR "herpes zoster"[MeSH Terms] OR shingles[Text Word]

Database:

PubMed

User query:

shingles facial paralysis

Use the **Citation** display format to display both the abstract and MeSH headings.

Display [Citation ▼] Show [20 ▼] [Sort by ▼] [Send to ▼]

All: 1 | Review: 0 ✖

☐ **1:** Acta Otorhinolaryngol Belg. 2004;58(1):61-6.   Related Articles, Links

Varicella zoster virus: beyond facial paralysis.

Van de Steene V, Kuhweide R, Vlaminck S, Casselman J.

Department of ENT, Head and Neck Surgery, AZ St-Jan Hospital, Bruges, Belgium.

J. Ramsay Hunt's hypothesis that herpes zoster oticus results from a reactivation of the herpes zoster virus in the geniculate ganglion, has been supported by the demonstration of varicella zoster viral DNA in the geniculate ganglion of the side with facial paralysis in patients with Ramsay Hunt syndrome, with the use of the polymerase chain reaction. Similarly, DNA of the varicella zoster virus has been identified in the spiral and vestibular ganglion as well. We report on three patients with cochleovestibular symptoms as the first manifestations of Ramsay Hunt syndrome. A 64-year old woman and a 72-year old man presented with vertigo and an auricular herpetiform eruption. Only the woman developed later on a mild facial paralysis. A 58-year old man presented with an acute cochleovestibular syndrome, serologically proven to be a varicella zoster viral reactivation, which was followed three weeks later by the typical cutaneous recrudescence. We believe that these cases result from reactivation of latent varicella zoster virus in the spiral and/or vestibular ganglion. As the varicella zoster virus is dormant in the non-neuronal satellite cells, the facial symptoms in our patients as well as the high incidence of cochleovestibular symptoms in classical Ramsay Hunt syndrome can be explained by viral transmission across the nerves inside the internal auditory canal. Therefore, we think there are grounds to recommend a prompt treatment with an antiviral and a corticosteroid agent, not only in case of an acute facial paralysis but also when confronted with an acute cochleovestibular syndrome.

Publication Types:
- Case Reports

MeSH Terms:
- Acyclovir/therapeutic use
- Aged
- Anti-Inflammatory Agents/therapeutic use
- Diagnosis, Differential
- Drug Therapy, Combination
- Evoked Potentials, Auditory, Brain Stem/physiology
- Facial Paralysis/diagnosis
- Facial Paralysis/drug therapy
- Facial Paralysis/microbiology*
- Female
- Geniculate Ganglion/microbiology
- Geniculate Ganglion/pathology
- Hearing Loss, Sensorineural/etiology
- Hearing Loss, Sensorineural/microbiology
- Herpes Zoster Oticus/complications*
- Herpes Zoster Oticus/diagnosis
- Herpes Zoster Oticus/drug therapy
- Herpesvirus 3, Human/isolation & purification*
- Humans
- Magnetic Resonance Imaging
- Male
- Middle Aged
- Prednisone/therapeutic use
- Vertigo/etiology

Substances:
- Anti-Inflammatory Agents
- Prednisone
- Acyclovir

PMID: 15517838 [PubMed - indexed for MEDLINE]

2. Find references about hypertension and a nosebleed. How does PubMed map the term, nosebleed? Display all of the retrieved records on one Web page.

Details:

The term, nosebleed, maps to the MeSH heading, **epistaxis**. From the **Show** pull-down menu, choose a number higher than your final retrieval set in order to display all the records on one Web page.

3. Find references about genetically modified food. Display the retrieved records in the format where you display the abstract but not the MeSH Headings.

Details:

```
              ▼   for │genetically modified food            │ │Go│ │Clear│
         Limits        Preview/Index        History        Clipboard           Details
   Query Translation:
   "food, genetically modified"[MeSH Terms]  OR genetically                  ▲
   modified food[Text Word]




                                                                            ▼
    │ Search │  │ URL │
   Result:
   381
   Translations:
   genetically modified      "food, genetically modified"[MeSH Terms] OR genetically modified food
   food                      [Text Word]
   Database:
   PubMed
   User query:
   genetically modified food
```

Use the **Abstract** display format to display the records with abstracts (if present) but not MeSH headings.

4. Are there articles by G. Barrera-Hernandez referenced in MEDLINE?

for `barrera-hernandez g`   Go Clear
   Limits   Preview/Index   History   Clipboard   **Details**

PubMed Query:

`barrera-hernandez g[Author Name]`

Search   URL

Result:

6

Database:

PubMed

5. Please find information about wisdom tooth pain. Using the Details screen, determine to what MeSH Heading wisdom tooth maps.

Molar, Third
is the MeSH
term to which
wisdom tooth
maps

▼   for `wisdom tooth pain`   Go Clear
   Limits   Preview/Index   History   Clipboard   **Details**

Query Translation:

`(("third molar"[TIAB] NOT Medline[SB]) OR "molar,`
`third"[MeSH Terms] OR wisdom tooth[Text Word]) AND`
`("pain"[MeSH Terms] OR pain[Text Word])`

Search   URL

Result:

475

Translations:

pain	"pain"[MeSH Terms] OR pain[Text Word]
wisdom tooth	("third molar"[TIAB] NOT Medline[SB]) OR "molar, third"[MeSH Terms] OR wisdom tooth[Text Word]

Database:

PubMed

User query:

wisdom tooth pain
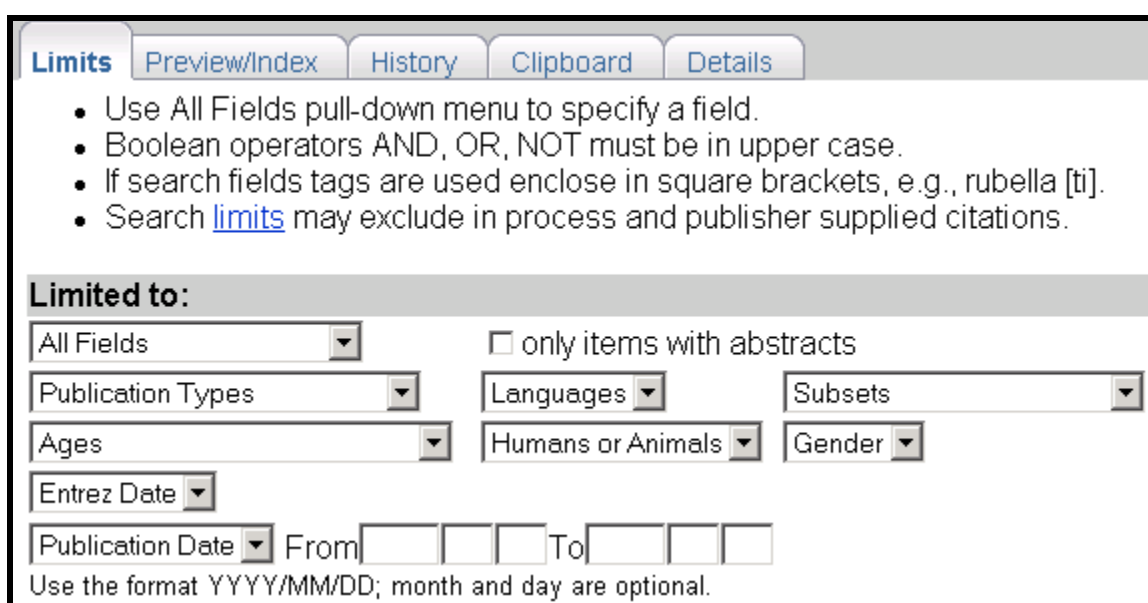
Feature Tabs

The Feature tabs offer several additional functions.

Limits

- Click on **Limits** from the Feature tabs to bring up the Limits page.

Field Selection

- You may limit your search terms to a specific search field.

- To select a specific field, click the All Fields pull-down menu and select a search field. Enter multiple terms separated by Boolean operators.

  Example: Select MeSH Terms from the pull-down, enter bed rest AND pain in the query box, click **Go**.
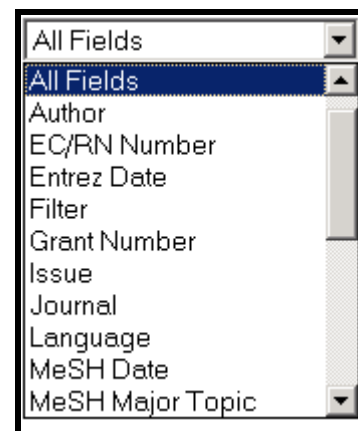
Only items with abstracts

- Click in this box to limit your retrieval to only citations with an abstract.
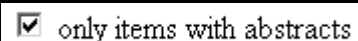
Publication Types

- You may limit your retrieval based on the type of material the citation represents.
- The Publications Types pull-down menu contains a list of frequently searched publication types. The full list of Publication Types can be found in Help. Or use the Preview/Index feature to view and search Publication Types.
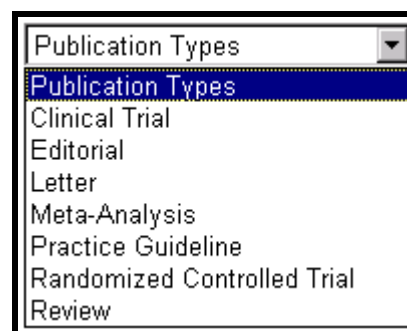
Languages

- Journals from approximately forty languages are indexed.

- The Languages pull-down menu contains a list of frequently searched languages. The full list of Languages can be viewed and searched using the Preview/Index feature.

Ages

- To search for a specific age group for human studies, click on the Ages pull-down menu and make a selection.
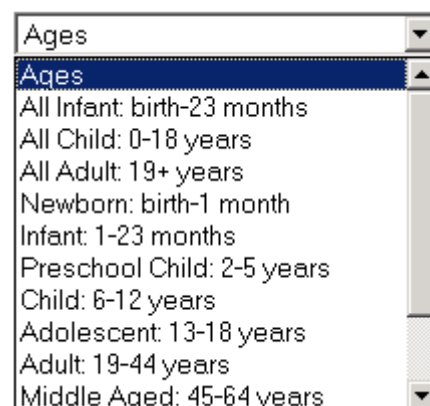
Gender

- To search for a specific gender, click on the Gender pull-down menu and make a selection.
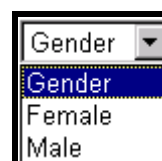
Human or Animal

- To search for a specific study group, click on the Humans or Animals pull-down menu and make a selection.
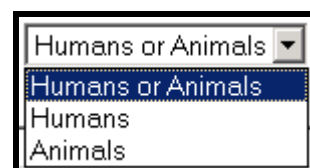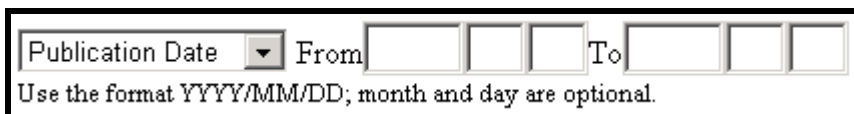
Dates
- PubMed contains citations published back to the 1950s.
- New citations are added Tuesday-Saturday.
- You may restrict to two date fields from the Limits screen:
  - Entrez Date: the date the citation was initially added to PubMed
  - Publication Date: the date the article was published
- When PubMed displays your search results, the citations are displayed in Entrez Date order – last in, first out.

Limiting by Dates

- Use the Entrez Date pull-down menu to limit your search back in time from 30 days to 10 years.
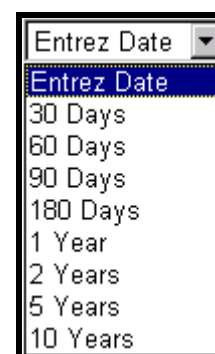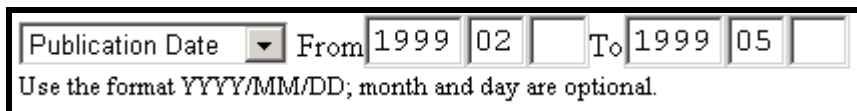
- The Publication Date pull-down menu toggles between Publication Date and Entrez Date.

- Use the From: and To: boxes to specify a range of dates.

Publication Date ▼	From			To			

Use the format YYYY/MM/DD; month and day are optional.

- Enter the dates in the format of YYYY/MM/DD (month and day are optional).

Examples:

Publication Date ▼	From 1999	02		To 1999	05	

Use the format YYYY/MM/DD; month and day are optional.

Entrez Date ▼	From 1999	08	01	To 2001	10	31

Use the format YYYY/MM/DD; month and day are optional.

Subsets

Allows you to limit your retrieval to one of the four types
of groupings of records:

1. Citation status:

> ► MEDLINE: completed citations with MeSH headings and
>   other indexing terms that have also been checked for
>   accuracy
> ► OLDMEDLINE for Pre1966: citations without abstracts or
>   current MeSH indexing that were originally printed in
>   hardcopy indexes published from 1950 through 1965
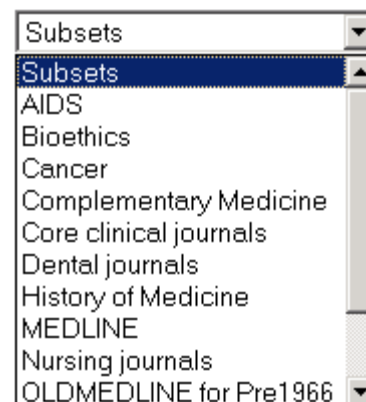
2. Subjects:
> ► AIDS
> ► Bioethics
> ► Cancer
> ► Complementary Medicine
> ► History of Medicine
> ► Space Life Sciences
> ► Toxicology

3. Journal groupings:
> ► Core clinical journals: 120 English-language journals from the formerly published *Abridged Index Medicus*
> ► Dental
> ► Nursing

4. Other:
> ► PubMed Central: citations for articles available free in NLM's archive of life sciences journal literature

Limits Indicator

- Once you have selected Limits, a check box appears next to the Limits on the Feature tabs.
- If you run a search, the limits in effect will appear in the yellow bar above the Display
  button:

To **turn off all of the limits** before you run your next search, click on the
check box next to Limits on the Feature tabs to remove the check and
turn off the limits.

History

- History temporarily holds up to 100 searches and links to results.
- The History screen displays:
  - ▶ Your search query
  - ▶ The time of the search
  - ▶ The number of citations in your search results
  - ▶ Search statement numbers menu for combining searches

Using History

- You can use the search statement numbers shown in History in search strategies.

Example:

Type Boolean operators in all caps as shown in the example above.

Other examples: #8 AND #10
                             #7 OR #14

Search Statement Number Menu

- Click on the search statement number to open an Options menu:

Search	Most Recent Queries	Time	Result
#6 Search **children tooth decay xylitol**		11:35:31	91
#5 Search **tooth decay xylitol**		11:35:27	247
#4 Search **xylitol**		11:35:15	1891
#3 Search **mercury exposure**		11:35:02	3356
#2 Search **chocolate**		11:34:53	1975
#1 Search **gallstones pain**		11:34:46	1667

⊡ **Options** ⊠
- ▸ AND
- ▸ OR
- ▸ NOT
- ▸ Delete
- ▸ Go
- ▸ Details

Clear

Options Menu includes:
- Boolean operators AND, OR or NOT to add the search to the query box
- Delete the individual search from History
- Re-run the search using the Go option
- Display the search details

History Tips:

- ✓ Maximum number of searches that can be held in History is **100**.
- ✓ The search history will be **deleted after 8 hours of inactivity**.
- ✓ PubMed will move a search statement number to the top of the History a new search is the same as a previous search.
- ✓ A separate Search History will be kept for each of the Entrez databases although the search statement numbers will be assigned sequentially for all databases.

Search Tip: Click on the **Clear History** button available at the bottom of the History screen to remove all searches from the History.

Preview/Index

This page is home to two functions: Preview and Index.

Use Preview/Index to:

- Preview the number of search results before displaying the citations.
- Refine search strategies by adding one or more terms, one at a time.
- Add terms to a strategy from specific search fields.
- View and select terms from the Index to develop search strategies.
- View your search strategy as you continue to refine your search.

Preview

Previewing the number of search results before displaying the citations

Search Request: *Find citations about xylitol and tooth decay.*

- Enter terms in the query box and click **Preview**.

- PubMed returns the number of citations but not the actual results.

Result shows the number of citations.

Refining search strategies by adding one or more terms at a time

- Add another term (e.g., tooth decay) to the query box and click Preview.
- View your search strategy and number of results as you continue to refine your search.

Preview *shows search strategy and number of results as each term is added.*	![Preview/Index screenshot showing search for "tooth decay xylitol" with Preview, Go, Clear buttons. Tabs: Limits, Preview/Index, History, Clipboard, Details. Instructions: Enter terms and click Preview to see only the number of search results. To combine searches use # before search number, e.g., (#2 OR #3) AND asthma. Click on query # to add to strategy. Search results: #2 Search tooth decay xylitol 15:02:59 249; #1 Search xylitol 14:56:57 1911]

Preview displays the last three queries from History. Use History to review up to the last 100 queries. The Clear History button in History also clears the history information from the Preview/Index.

History will be lost after 8 hours of inactivity on PubMed.

Index

Viewing and selecting terms from the Index to develop search strategies

- Use the Index button to view and select terms from the Index and to add them to your search strategy.
- The Index allows you to view a listing of searchable terms within a search field.
- You may also select terms to build a search strategy using Boolean operators.

Selecting a field and entering a term to look up in the Index

Search Request: *Find patient information about anthrax.*

On the Preview/Index screen enter anthrax in the PubMed query box:
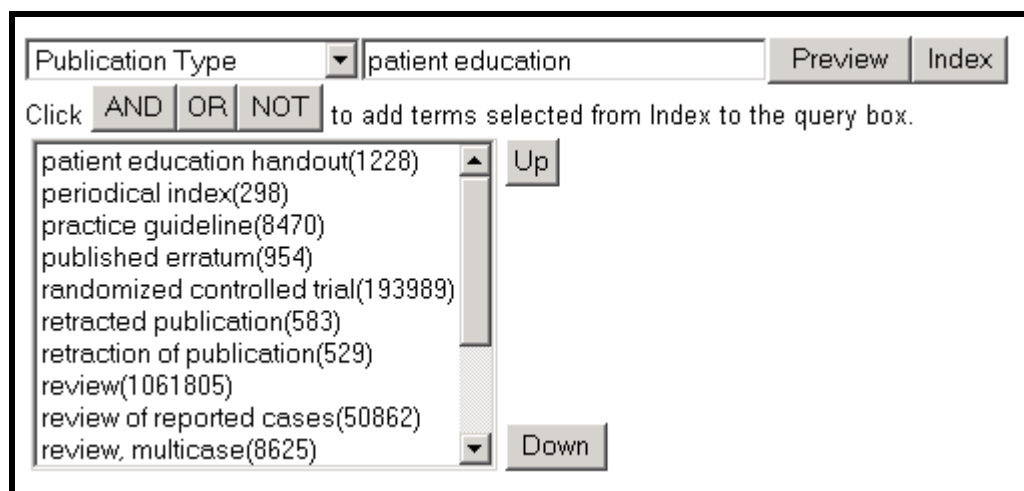
Search | PubMed ▾ | for anthrax   Preview | Go | Clear

- Select Publication Type from the pull-down menu, type the term, patient education and click on the Index button.

*PubMed displays a portion of the alphabetical list of available terms for the selected search field. Scroll up and down this window using the **scroll bar**.*

The number of citations that contain the term appears in parentheses to the right of the term.

*To scroll up or down the entire Index for the field, click the **Up** or **Down** buttons.*

Publication Type ▾ | patient education   Preview | Index

Click AND | OR | NOT to add terms selected from Index to the query box.

patient education handout(1228)   ▲   Up
periodical index(298)
practice guideline(8470)
published erratum(954)
randomized controlled trial(193989)
retracted publication(583)
retraction of publication(529)
review(1061805)
review of reported cases(50862)
review, multicase(8625)   ▼   Down

Selecting a term from the Index

- Click on the term to highlight it.

- Click on Preview.
- Continue viewing, selecting, and previewing search terms until your strategy is complete.

Query box shows the search term and the search field.

Result shows the number of citations.

Preview automatically ANDs together selected search terms and previews the search. Use the **Boolean operators** to combine search terms as needed. If you use the Boolean operators, your search terms are added to the PubMed query box and you must click Preview to see the number of results.

To **OR** together multiple terms from an Index display and then add (i.e., **AND**) them to your search, click on each term while holding down the Crtl-key (PC) or the Command-key (Mac). When all the terms you want are highlighted, click the connector AND to add the terms (OR'ed together) to the query.

Clipboard

| Limits | Preview/Index | History | **Clipboard** | Details |

- Clipboard allows you to collect selected citations from one search or several searches.
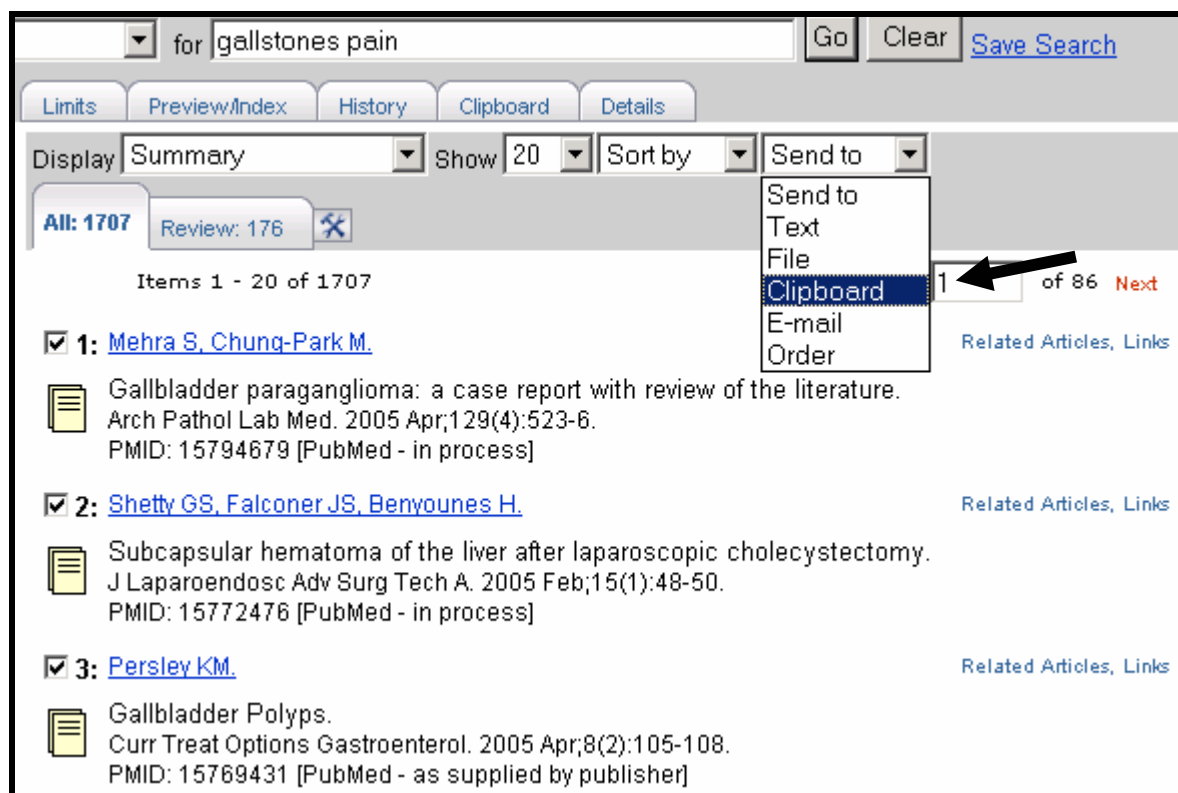
- You can sort, print, save, or order the citations on the Clipboard.

- To place items on the Clipboard, click on the check-box to the left of the citation.

- Then select Clipboard from Send to pull-down menu. You get a confirmation message stating that the items are added to the Clipboard.
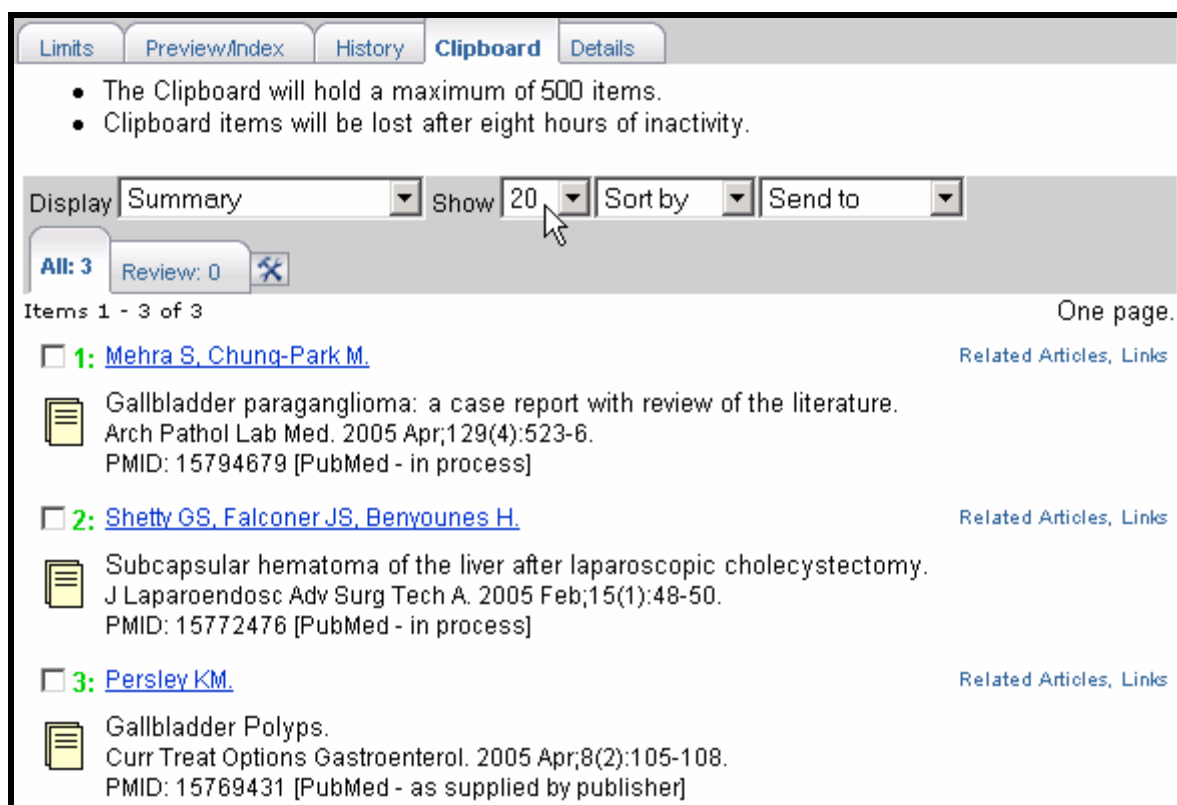
- Once the citations are added to the Clipboard, the items number color changes.

Clipboard Tips:

> ✓ If you send items to the **Clipboard** without selecting citations using the check-box, PubMed will add up to 500 citations from your retrieval to the clipboard.

> ✓ The maximum number of items that can be added to the clipboard is 500.

> ✓ The clipboard will be lost after 8 hours of inactivity.

Using the Clipboard

- To view the contents of your clipboard, click on Clipboard from the Feature tabs.

Deleting citations from the Clipboard

- To delete citations on the Clipboard, click on the check-box to the left of the item number, and then select **Clip Remove** from the Send to menu.

- To empty the Clipboard, select **Clip Remove** from the Send to menu.

Citations on the Clipboard may be incorporated into a search statement using #0. For example, limit the items on the Clipboard to English language citations using the following search:

Search Tip:

#0 AND english [la]

This does not affect or replace the Clipboard contents.

Details

| Limits | Preview/Index | History | Clipboard | **Details** |

- Clicking on Details displays your search query as it was translated by PubMed including MeSH term and PubMed phrase index mappings.

- Error messages (e.g., stopwords, truncation warnings, misspellings) are also displayed.

- The PubMed Query box in Details allows you to edit a search strategy and resubmit it.

- Details also allows you to save a search strategy.

Here's a closer look at Details:

*You can modify the search strategy if you wish and then click on the **Search** button.*

*Click on the **URL** button to create a URL that allows you to save your search strategy.*

*Click on the **Result** number hyperlink to return to the current search results.*

PubMed Translations

| [dropdown] | for | food allergies infants | | Go | Clear | Save Search |

| Limits | Preview/Index | History | Clipboard | **Details** |

Query Translation:

```
(("food hypersensitivity"[TIAB] NOT Medline[SB]) OR "food
hypersensitivity"[MeSH Terms] OR food allergies[Text Word])
AND (("infant"[TIAB] NOT Medline[SB]) OR "infant"[MeSH
Terms] OR infants[Text Word])
```

| Search | URL |

Result:

2656

Translations:

| food allergies | ("food hypersensitivity"[TIAB] NOT Medline[SB]) OR "food hypersensitivity"[MeSH Terms] OR food allergies[Text Word] |
| infants | ("infant"[TIAB] NOT Medline[SB]) OR "infant"[MeSH Terms] OR infants[Text Word] |

Database:

PubMed

User query:

food allergies infants

Saving a search strategy from Details:

- Click on the **URL** button. PubMed will return to the search results screen. The translated search strategy will be displayed in the query box and this search strategy will also be embedded as part of the URL.

- Next, use your Web browser's bookmark (favorite) function to save the URL as a bookmark. After saving the bookmark, you may want to use your Web browser's edit functions to rename the bookmark.

- Save a search strategy using the **URL** button if you want to email the URL to a colleague or create a link on a Web page.

Current Awareness Searching

If you wish to run a search periodically to retrieve recent information since you last ran the search, you can use My NCBI.   See **My NCBI section** of this workbook for detailed information on **My NCBI Stored Searches**.

Practice Exercises

1. Using only the query box, find some information about using a living donor for a liver transplantation. Using Limits, further restrict the search to the publication type, Clinical Trial. Display the results so you can see the MeSH Headings and the entire retrieval is on one page.

2. Locate citations about using a baboon for a bone marrow transplant that were published between 1997-2000.

3. Find references about injuries from backpacks or backpacking. Bookmark this search strategy so the search can be run again at a later date.

4. Search the phrase pressure point from the Text Word Index (available on Preview/Index).

5. Find citations about using botox to treat migraines. Add the search results to the Clipboard. Go to the Clipboard to see the items.

6. A patron is interested in references about tuberculosis, particularly in the early literature (pre1966).

Suggested Answers

1. Using only the query box, find some information about using a living donor for a liver transplantation. Using Limits, further restrict the search to the publication type, Clinical Trial. Display the results so you can see the MeSH Headings and the entire retrieval is on one page.

Then Display the results so you see the MeSH headings and the entire retrieval is on one page.

*Use the **Citation** format to see the MeSH terms.*

*Use the **Show** pull-down menu to display all the items on the same Web page.*

2. Locate citations about using a baboon for a bone marrow transplant that were published between 1997-2000.

3.   Find references about injuries from backpacks or backpacking. Bookmark this search
     strategy so the search can be run again at a later date.

Details:

If you
truncate
*backpack**
you pick up:

Backpack
Backpacker
Backpackers
Backpacking
backpacks

Use the URL button from Details to have PubMed embed the search strategy into a URL. Use
your Web browser's bookmark function to save this URL.

4. Search the phrase pressure point from the Text Word Index (available on Preview/Index).

Select Text Word from the All Fields pull-down.

Enter pressure point in the text box.

*Click on **Index** to see pressure point in the Text Word Index.*

*Use **Ctrl** key to OR together both the singular and plural forms.*

*Click **Preview**.*

To search from the Index, select pressure point and click **Preview**.

5. Find citations about using botox to treat migraines. Add the search results to the Clipboard. Go to the Clipboard to see the items.

Enter botox migraines in the query box. Select **Clipboard** *from Send to menu to add all the items to the Clipboard.*
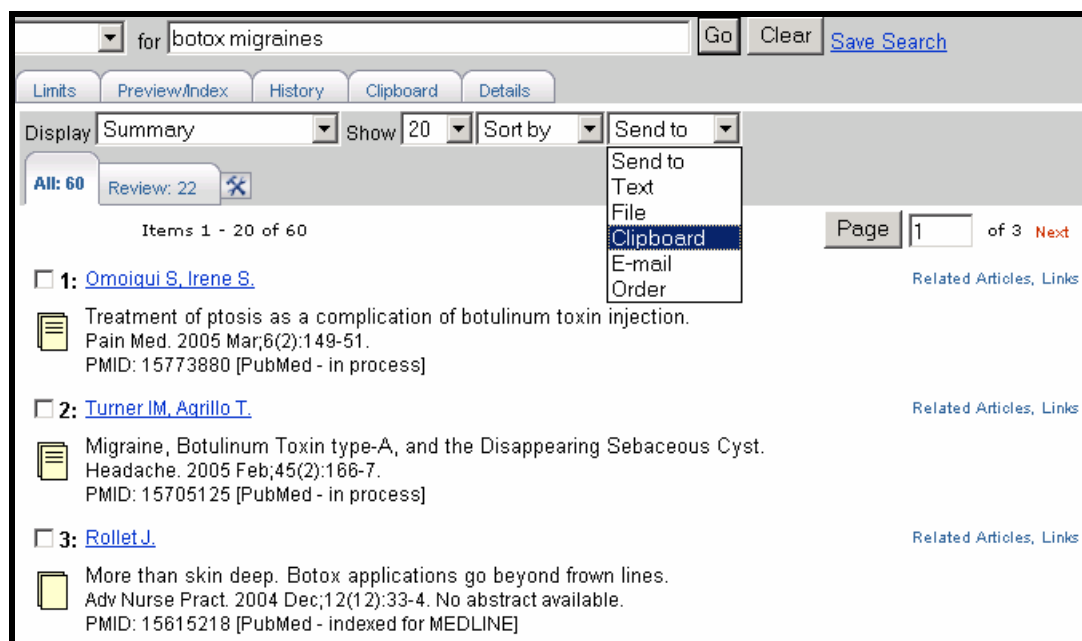
Once you send the items to Clipboard, the following message tells you the items were added.

To see the items on the Clipboard, click on **Clipboard** on the Features Bar.

6. A patron is interested in references about tuberculosis, particularly in the early literature (pre1966).

<u>N</u> <u>O</u> <u>T</u> E <u>S</u>

Related Articles/LinkOut

Related Articles

- Citations in PubMed have a **Related Articles** link. Clicking on this link will access the citations in PubMed that are most closely related to the original citation.

- To create this list of Related Articles PubMed compares words from the Title and Abstract of each citation, as well as the MeSH headings assigned, using a powerful word-weighted algorithm.

- The Related Articles citations display is in rank order from most to least relevant. The citation you linked from is displayed first.

A detailed explanation of the Related Articles algorithm is available in the PubMed **Help** under **Links, Related Articles, Computation of Related Articles**.

Example: *Find citations to articles wrestling and crash diets.*
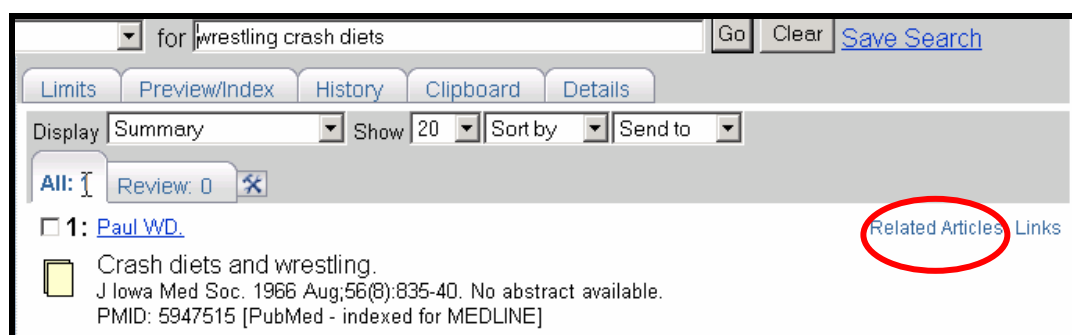
Related Articles Link

- This search retrieves only 1 citation. Now click on the Related Articles link and PubMed will display a list of related citations:

☐ 1: Paul WD.   *Related Articles, Links*

Crash diets and wrestling.
J Iowa Med Soc. 1966 Aug;56(8):835-40. No abstract available.
PMID: 5947515 [PubMed - indexed for MEDLINE]

☐ 2: Tipton CM, Tcheng TK.   *Related Articles, Links*

Iowa wrestling study. Weight loss in high school students.
JAMA. 1970 Nov 16;214(7):1269-74. No abstract available.
PMID: 5536310 [PubMed - indexed for MEDLINE]

☐ 3: Amundson LH.   *Related Articles, Links*

Sports medicine symposium, weight cutting and wrestling.
S D J Med. 1973 Oct;26(10):31-5. No abstract available.
PMID: 4517789 [PubMed - indexed for MEDLINE]

☐ 4: Higgins EA, Mertens HW, McKenzie JM, Funkhouser GE.   *Related Articles, Links*

Physiological biochemical, and performance responses to a 24-hour crash diet.
Aviat Space Environ Med. 1982 Mar;53(3):210-7.
PMID: 7187213 [PubMed - indexed for MEDLINE]

Refining your Related Articles retrieval set:

- Click History
- The Related Articles link is represented as: Related Articles for PubMed (Select 5947515), where 5947515 is the PMID in this example.

	Limits	Preview/Index	**History**	Clipboard	Details	

- Search History will be lost after eight hours of inactivity.
- To combine searches use # before search number, e.g., #2 AND #6.
- Search numbers may not be continuous; all searches are represented.
- Click on query # to add to strategy

Search	Most Recent Queries	Time	Result
#2 **Related Articles** for **PubMed** (Select **5947515**)		15:29:21	102
#1 Search **wrestling crash diets**		15:19:43	1

Use the search statement number (e.g., #2) and use Limits or combine with another concept:

Example: #2 AND english [la]

Take Note: Refining will remove the ranking by relevancy.

LinkOut

LinkOut provides links from PubMed and other Entrez databases to a wide variety of relevant web-accessible online resources including full-text publications.

Full-text is available when you see an icon link on the Abstract or Citation display formats. Free full-text icons are displayed on the Summary, Abstract or Citation display formats.

The icon link to full-text from the Abstract format.

1: J Cell Biol 1997 Sep 22;138(6):1289-301   Related Articles, Links

FREE full text article at www.jcb.org

Conservation of the centromere/kinetochore protein ZW10.

Starr DA, Williams BC, Li Z, Etemad-Moghadam B, Dawe RK, Goldberg ML.

Section of Genetics and Development, Cornell University, Ithaca, New York 14853-2703, USA.

Mutations in the essential Drosophila melanogaster gene zw10 disrupt chromosome segregation, producing chromosomes that lag at the metaphase plate during anaphase of mitosis and both meiotic divisions. Recent evidence suggests that the product of this gene, DmZW10, acts at the kinetochore as part of a tension-sensing checkpoint at anaphase onset. DmZW10 displays an intriguing cell cycle-dependent intracellular distribution, apparently moving from the centromere/kinetochore at prometaphase to kinetochore microtubules at metaphase, and back to the centromere/kinetochore at anaphase (Williams, B.C., M. Gatti, and M.L. Goldberg. 1996. J. Cell Biol. 134:1127-1140). We have identified ZW10-related proteins from widely diverse species with divergent centromere structures, including several Drosophilids, Caenorhabditis elegans, Arabidopsis thaliana, Mus musculus, and humans. Antibodies against the human ZW10 protein display a cell cycle-dependent staining pattern in HeLa cells strikingly similar to that previously observed for DmZW10 in dividing Drosophila cells. Injections of C. elegans ZW10 antisense RNA phenocopies important aspects of the mutant phenotype in Drosophila: these include a strong decrease in brood size, suggesting defects in meiosis or germline mitosis, a high percentage of lethality among the embryos that are produced, and the appearance of chromatin bridges at anaphase. These results indicate that at least some aspects of the functional role of the ZW10 protein in ensuring proper chromosome segregation are conserved across large evolutionary distances.

PMID: 9298984 [PubMed - indexed for MEDLINE]

Links back to citations in PubMed are often provided within the references at the end of an article viewed from a publisher's Web site:

Click on [__Medline__] link to go to the PubMed record for this reference.

References

1. Albertson, D.G., and J.N. Thomson. 1982. The kinetochores of *Caenorhabditis elegans*. *Chromosoma (Berl.).* 86: 409-428 [Medline].
2. Albertson, D.G., and J.N. Thomson. 1993. Segregation of holocentric chromosomes at meiosis in the nematode, *Caenorhabditis elegans*. *Chromosome Res.* 1: 15-26 [Medline].
3. Ault, J.G., and T.W. Lyttle. 1988. A transmissible dicentric chromosome in *Drosophila melanogaster*. *Chromosoma (Berl.).* 97: 71-79 .
4. Bai, C., P. Sen, K. Hofmann, L. Ma, M. Gobel, J.W. Harper, and S.J. Elledge. 1996. *SKP1* connects cell cycle regulators to the ubiquitin proteolysis machinery through a novel motif, the F-box. *Cell.* 86: 263-274 [Medline].
5. Bajer, A., and J. Mole-Bajer. 1969. Formation of spindle fibers, kinetochore orientation, and behavior of the nuclear envelope during mitosis in endosperm. *Chromosoma (Berl.).* 27: 448-484 .
6. Barstead, R.J., and R.H. Waterson. 1989. The basal component of the nematode dense-body is vinculin. *J. Biol. Chem.* 264: 10177-10185 [Medline].

To see the full list of web-accessible online resources for an item, select LinkOut from the Links pull-down menu.

Click on icon to view a legend of icon displays.

LinkOut Libraries after "J" was selected.

To limit your retrieval to full-text, use the following Subset [sb] values or set these filters within My NCBI.
free full text [sb] - Citations with a link to a free full-text article.
full text [sb] - Citations with a link to a full-text article.
Example: diabetes AND full text [sb]
See Search Field Descriptions section to learn more about Subsets and My NCBI section to learn more about My NCBI.

Books Link

- Books links take you from terms in titles and abstracts to the **Bookshelf** database. This is a collection of biomedical books.

Example: *Search PubMed for BRCA1.*

- For the first item, use the Links pull-down menu to select the Books link.

- This takes you to a facsimile of the Citation format, in which some terms are links. These correspond to terms that are also found in the books available on the Bookshelf.

Note the links.

To learn more about Books, go to the Bookshelf at
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=Books.

Clicking on a link (e.g., BRCA1) takes you to a list of books in which the phrase is found:

Click on the link (i.e., 44 items) to see sections of Cancer Medicine that discuss this gene.

Choose a section title to learn more about the BRCA1 gene.

My NCBI

My NCBI Features
- Saved Searches: save search strategies to get updates - including automatic e-mailed updates.
- Filters: Group your retrieval by topics of interest to you

Getting to My NCBI

- PubMed's banner will display links to My NCBI.
- The **My NCBI** link goes to your list of saved searches.
- **Sign In** links to the Sign In page.
- **Register** links to the My NCBI registration page.

Registering for My NCBI
- To use My NCBI you need to register for an account.

Sign In: Session-Only or Automatic

The check box, "Keep me signed in unless I sign out" is un-checked as the default.

*This means that My NCBI features will be available **for your current session**.*

*Check the box if you want My NCBI features to be available from that computer without signing in again. This is done by use of a **permanent cookie** which remains on the computer.*

*Click **About automatic sign in** for more information about this feature.*

Important Facts about the E-mail for My NCBI Account
- Each My NCBI account can have **only one** e-mail address that will be used for all automatic e-mail updates saved in that account.
- If, at a later time, you change the e-mail address for your account, the new e-mail address will be used for **all** automatic updates following confirmation (see below).
- To change the e-mail address on an account, go to **User Preferences** on the My NCBI sidebar.

The address for PubMed's Send to E-mail feature *can* be changed for individual e-mails on the Send to E-mail page without affecting the e-mail address used for the My NCBI account.

The Confirmation E-mail
- The first time an automatic e-mail update is created for an account, or if the e-mail is changed in User Preferences, a confirmation e-mail will be sent to that address.
- No automatic updates will be sent to an address until it has been confirmed.

Saving Searches

- Run your PubMed search.
- From the Results page, click on the **Save Search** link to the right of the query box.
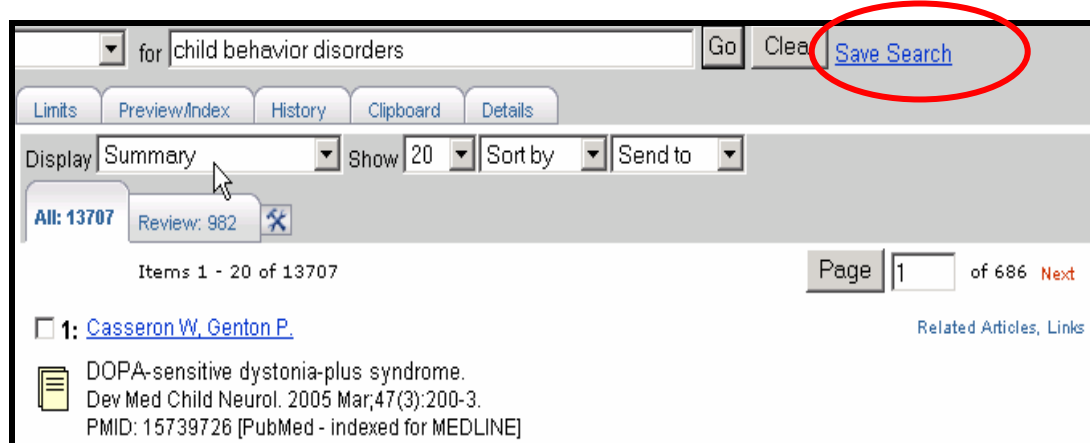
Click here.
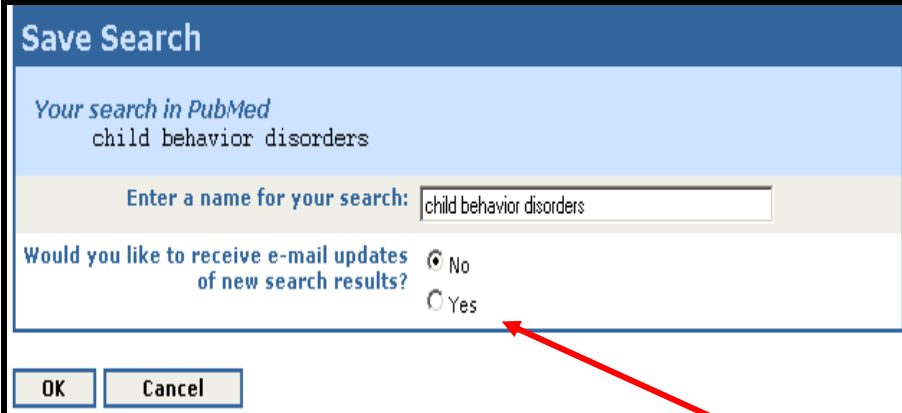
PubMed uses the search as it is stored in the History, so it is important to run a search in order for it to appear in the History.

PubMed will open a separate window in your browser to start the saving process. (If you are not already signed into My NCBI, you will be prompted to do so.)

You can edit the name of the search.

This name will be part of the Subject line of automatic e-mail updates.
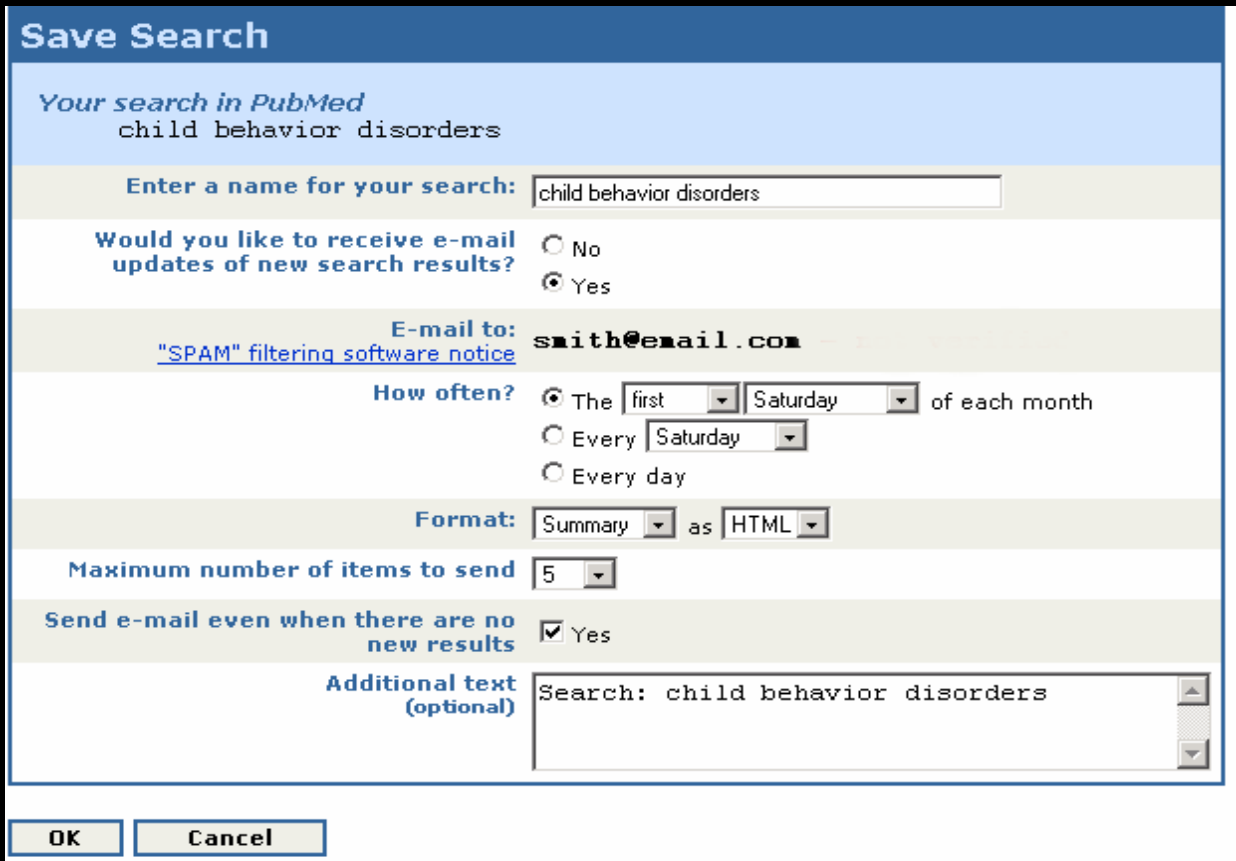
- Next, indicate whether or not you want to have the updates automatically e-mailed.

- If you leave the setting as No, the search is saved and you can update it at your convenience.

- If you select the Yes button, the window will extend to display additional options for customizing the update:

Setting up automatic updating

Searches saved for automatic updating require that additional details be supplied.

- If the e-mail box is blank, enter an **e-mail address** for the account. *All* automatic updates will be sent to that address following confirmation
- Select **How often** you want to get updates - monthly, weekly, or daily.
- Select the **format** (Summary, Abstract, etc.)**,** and either an HTML or text e-mail.
- Select the **maximum number of items to be sent** with each update. Don't worry about picking a number that is too low. You can use a link in the e-mail that takes you to the total update results in PubMed.
- If you want to know when an update retrieved no citations, select, **Send e-mail when there are no new results**.
- The **Additional text** box will default to the search name. You can replace this text, keeping in mind that this text will display on each e-mail update as "Sender's message" and the strategy is also displayed in the e-mail message. Many users will prefer not to include additional text.

*Click on the word, "**here**" to view the complete results. For this example, to see all 10 citations.*

This message contains My NCBI what's new results from the National Center for Biotechnology Information (NCBI) at the U.S. National Library of Medicine (NLM).
Do not reply directly to this message.

Sender's message: Search: child behavior disorders

Sent on Saturday, 2005 Feb 12
Search **child behavior disorders**
Click here to view complete results in pubmed. (Results may change over time.)
To unsubscribe from these e-mail updates click here.

Entrez pubmed Results

Items 1 - 5 of 10

☐ 1: Stein A, Krebs G, Richter L, Tomkins A, Rochat T, Bennish ML.   Related Articles, Books, LinkOut

Babies of a pandemic.
Arch Dis Child. 2005 Feb;90(2):116-8. No abstract available.
PMID: 15665160 [PubMed - indexed for MEDLINE]

☐ 2: Dery M, Toupin J, Pauze R, Verlaan P.   Related Articles, Books, LinkOut

Frequency of mental health disorders in a sample of elementary school students receiving special educational services for behavioural difficulties.
Can J Psychiatry. 2004 Nov;49(11):769-75.
PMID: 15633855 [PubMed - indexed for MEDLINE]

Partial e-mail update results

Manually Updating Searches
- To manually update a search, go to your saved searches in My NCBI.
- Check the box to the left of the search to be updated and click **What's New for Selected** at the bottom of the page.
- My NCBI will indicate if there are any new citations retrieved by the strategy since your last update.
- If you link to the results, i.e., complete the update, your saved search list will reflect the date and time of the update.

Additional Functions available from My Saved Searches page

*In the **Details** column click on the frequency (Daily, Weekly, Monthly) to go to the Search Details page where you can make changes.*

*Hold your cursor over the data in the **Last Updated** column to show the date the next e-mail update will be sent, or in the case of No Schedule, you will see the date you last manually generated new citations.*

Saved searches can be run to retrieve total results, i.e., not limited to new citations. Click on the name of the search. (This will not affect future updates.)

Modifying a Strategy: Save a New One and Delete the Old
- Saved search strategies cannot be edited. To modify a strategy, re-save it with your changes.
- To delete a search, select the search using the check box and click on the **Delete Selected** button at the bottom of the page.

Changing the E-mail Address for an Account

- User Preferences is accessible via a link on the My NCBI sidebar. You can change the e-mail address for your My NCBI account here.

- Keep in mind, anytime you change the e-mail for an account, all automatic updates will be sent to that address following confirmation.
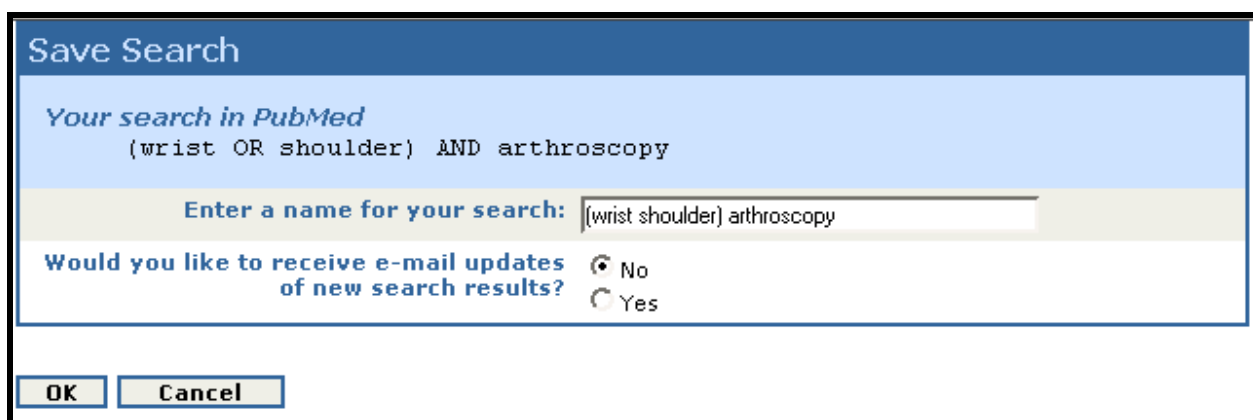
Search Statement Numbers in Saved Searches

- My NCBI allows you to save searches with search statement numbers (#2 OR #3) AND #1.

- Be aware that the default search name does not include any Boolean operators and search tags, if entered.

Example: (#1 OR #2) AND #4

#1: wrist
#2: shoulder
#4: arthroscopy

- This name does not affect the strategy, so it is advisable to edit it to something short, yet meaningful.
- Be sure to run your search before saving it, in order for it to appear in the History and be successfully saved.

About the Updates

- The update strategies used for My NCBI are detailed in PubMed's Help.

- New or modified searches can be generated no sooner than the next day. For example, this morning, you changed the frequency for an update from Monthly to Daily. The first update will be sent tomorrow.

Filters

- My NCBI includes a Filters feature which groups search results by areas of interest.
- You can have up to **five** active filters using My NCBI.

The Tabs

- "All" tab shows the total retrieval for the search. "Review" tab shows the total retrieval for review articles.

*The **All** tab shows the total retrieval for the search. The **Review** tab shows the total retrieval for review articles.*

To the right of the "Review" tab, the hammer and wrench icon links you to My NCBI where you can add or modify your filter choices.
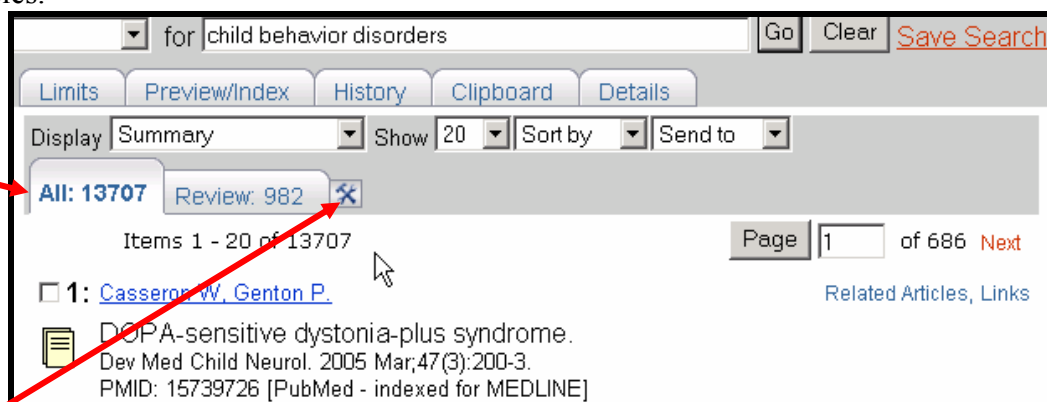
Adding Filters

- Use the ⚒ icon to link to the **Quick Pick** list of commonly-requested filters:

Click in the checkboxes to select or deselect filters.

Browse

- Click on Browse to see additional options for PubMed filters.
- On the Browse page there are three categories:
    - LinkOut
    - Links
    - Properties
- Users interested in **subject-related filters** for their searches should look at **Properties**.

There are over 70 filter options under Properties.
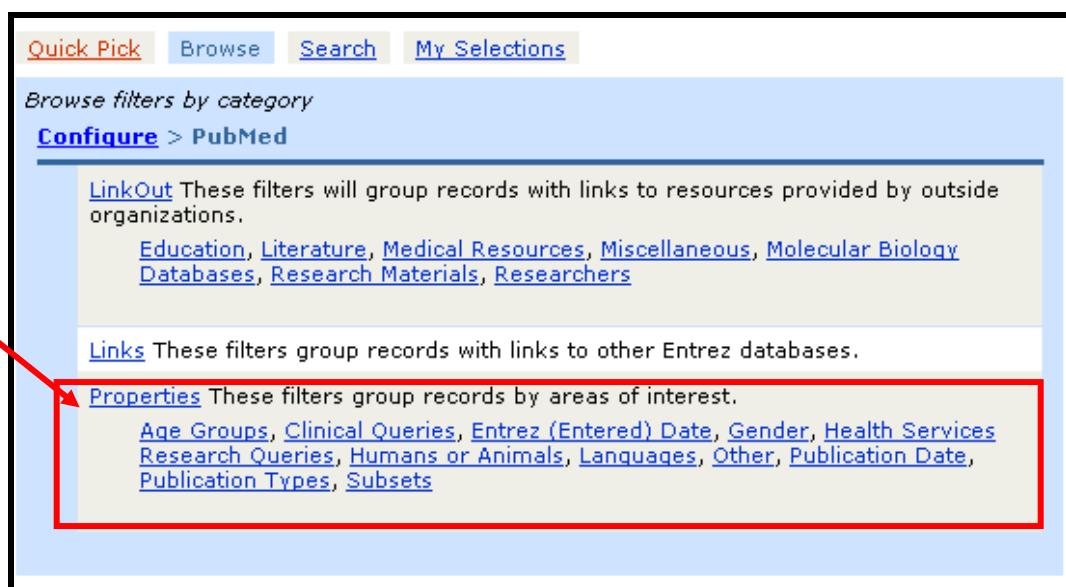
Under Properties, use the links to see the available filters for each sub-category. Here's the one for Publication Types:

Use the link for the desired filter to go to a page where you can select that filter.
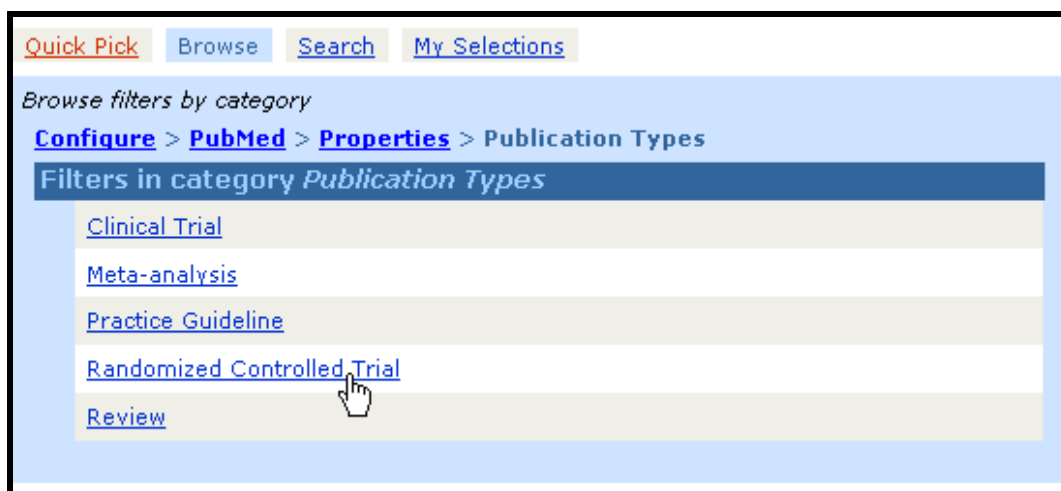
Click in the checkbox to select the filter.
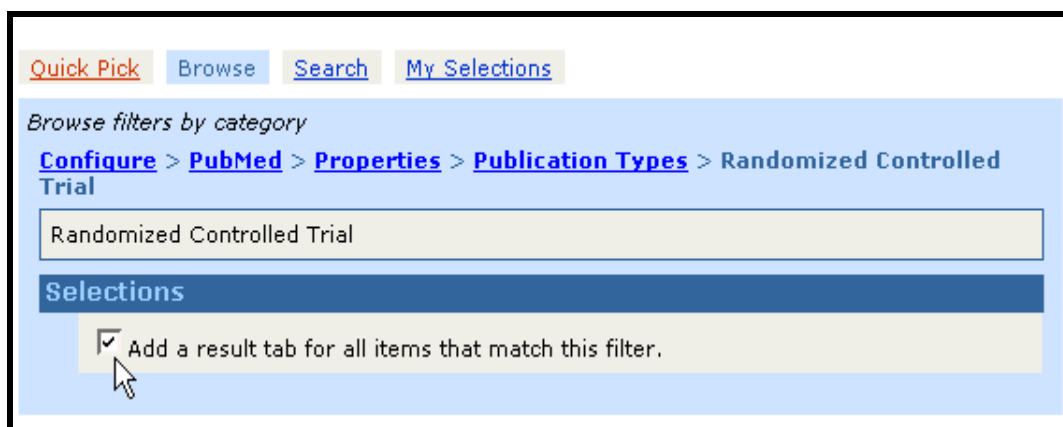
LinkOut Filters

- Filters in this category group results by full text providers, libraries, and other outside resources.

Adding your library's holdings as a filter

- From the LinkOut filters page:

Click on **Libraries** *link.*
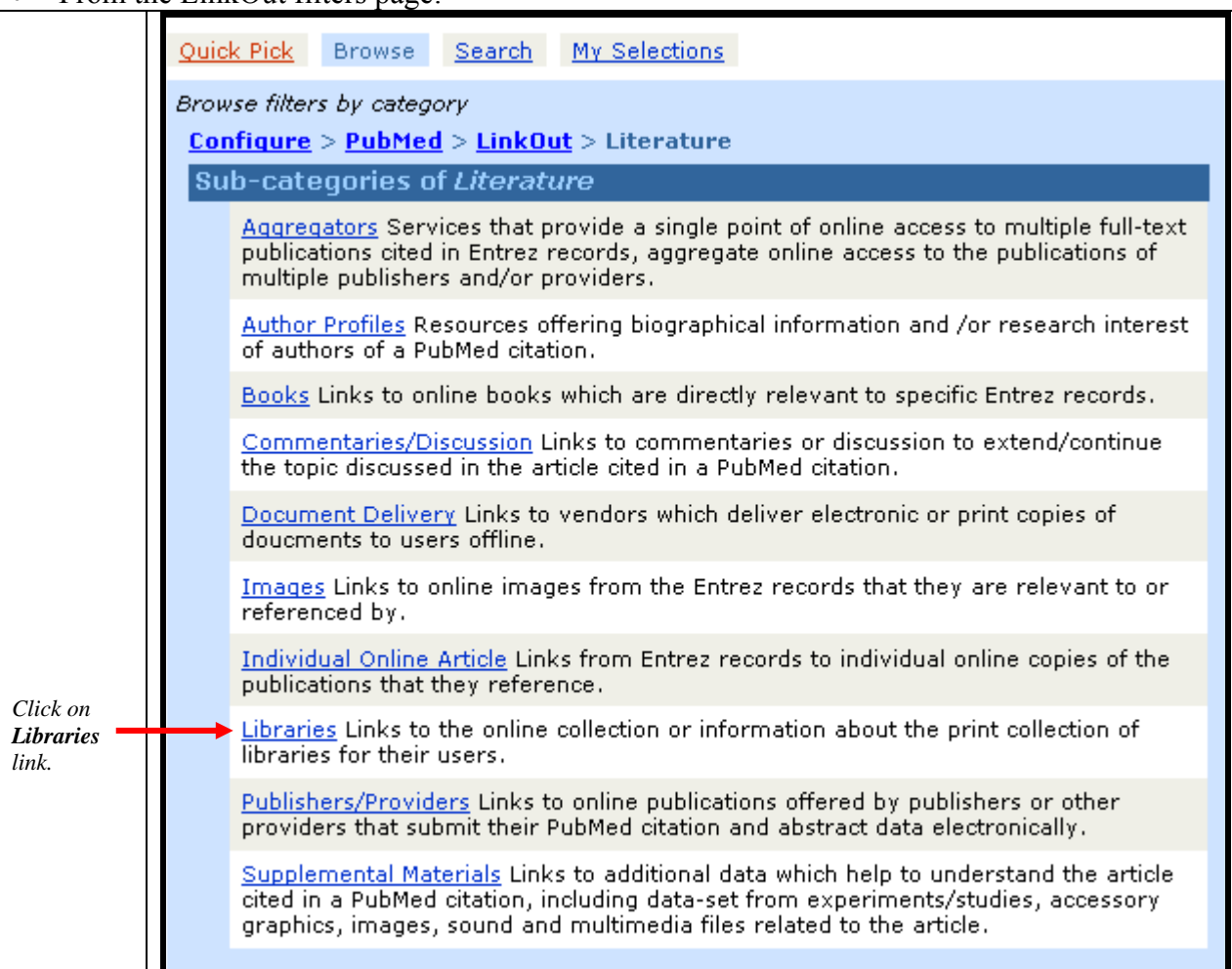
This will bring up a page with all of the LinkOut-participating libraries.
- Use your browser's Find feature to locate your library.
- Click on the desired library link.
- Then click on the checkboxes to add a result tab and/or display the library's icon:

Notice the use of "breadcumbs" on the Filters pages.

Each breadcrumb for a higher level is a link to that page.

Click in the checkboxes to add these selections.

- Results tabs for LinkOut providers display the LinkOut user name.
- Place your cursor over this ID to see the name of the provider.
- Users who connect to PubMed with a URL that includes a library's holdings parameter will continue to see their library icon even if they do not select their library in My NCBI. Users should select their library filter if they want to see a filter tab for their library in the search results.

My Selections
- Click on My Selections at any time to check on the filters selected:

Using the Filter Tabs

- Click on a filter tab to go to the citations for a particular filter. Select any display format you wish.
- When you click on the filter name (tab) to see the results for a filter, a tack symbol will appear in the tab:

Clicking on the ✗ *icon "tacks" that filter onto the search query.*

- Filters added this way will display in the query box with the [Filter] tag.
- If you want to save this search, click on Save Search.
- Many filter topics can be added to the search via the Limits page. Either way will yield the same results.

User Preferences

- Available from My NCBI sidebar
- Change the display format for the Links menu on your search results screen.
- Save an e-mail address for Send to E-mail as well as automatic e-mail updates.
- Choose to highlight PubMed search words in retrieval when you are signed into My NCBI.

Activating Highlighting Feature:

*Highlighting default is set to **Off**.*

*Selecting a color and clicking **OK** activates this feature.*

Searching with MeSH

Two selections are available for MeSH searching from the field selection pull-down menu in Limits:

- MeSH Terms - Use when you want to specify that a term is searched only as a MeSH heading not also as a Text Word.

When a term is searched as a MeSH Heading, PubMed automatically searches that heading and the more specific headings underneath in the hierarchy. This is called exploding a term.

For example, the MeSH term **Face** when searched as MeSH Term in PubMed would search the heading Face as well as all the more specific terms below the term in the hierarchy:

Face
    Cheek
    Chin
    Eye
        Eyebrows
        Eyelids +
    Forehead
    Mouth
        Lip
    Nose

Searching with MeSH terms will *exclude* in process citations and publisher-supplied citations as they have not been indexed with MeSH headings.

- MeSH Major Topic - Use when you wish to limit to articles where the topic is the main point of the article.

MeSH Database

The MeSH Database allows you to:
- Locate and select MeSH terms (Headings, Subheadings, & Publication Types); Supplementary Concept terms (Substance Names) and Pharmacological Action terms.
- See the definition and other helpful information for a MeSH term.
- Build a PubMed search strategy.
- Display MeSH terms in the hierarchy.
- Limit MeSH terms to a major concept for a search.
- Attach subheadings for a search.
- Link to the NLM MeSH Section's MeSH Browser

How to Get There

- Click on **MeSH Database** on the sidebar.

Let's use the MeSH Database to find the proper **MeSH term** for condition of *double vision* and then search PubMed for relevant citations.

*Enter the term, **double vision**, in the query box and click the **Go** button.*
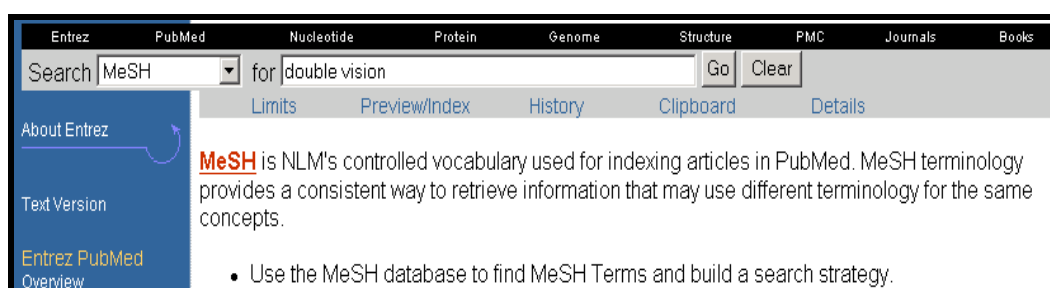
Summary format:
- Select PubMed from the Links pull-down menu to run a PubMed search with that term.

Suggestions are MeSH or Entry terms generated by an algorithm that compares letter combinations.

Scope Note (meaning for this concept is displayed.)

Links allows you to use the term in a PubMed search, the MeSH Section MeSH Browser or Clinical Queries.
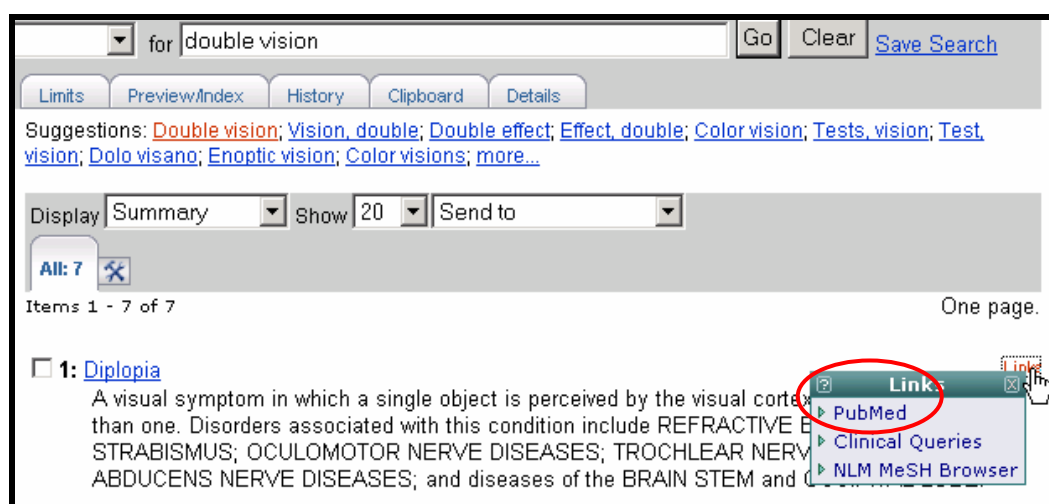
Let's search for the supplementary concept term: **1,4-bis(chloromethyl)benzene**

Some substance names are long and "complicated." Please note also that when searching any Entrez database for a term with parentheses, e.g., 1,4-bis(chloromethyl)benzene, do *not* enter the parentheses.

Summary format:

These terms will display in search retrieval with the label [Substance Name].

Click on the term link to see the **Full display** that may include additional information:

*To see complete information for any term, use the link to the **NLM MeSH Browser** from the **Links** menu*
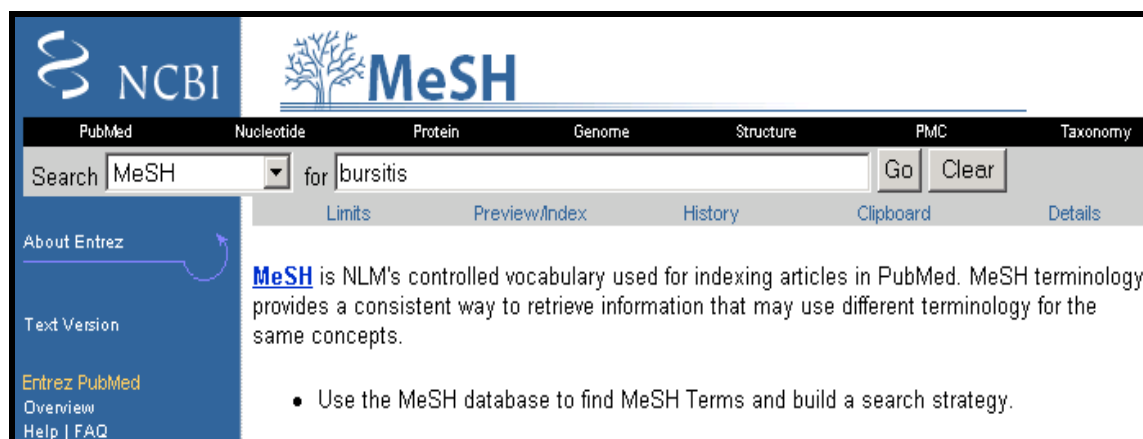
The Feature tabs (Limits, History, etc.) from the MeSH Database deal specifically with the MeSH Database not the PubMed database.

Now, let's use the MeSH Database to build a search strategy for a search for citations about the *diagnosis of bursitis* which requires the use of a subheading.

*Enter the term, **bursitis** , in the query box and click the **Go** button.*
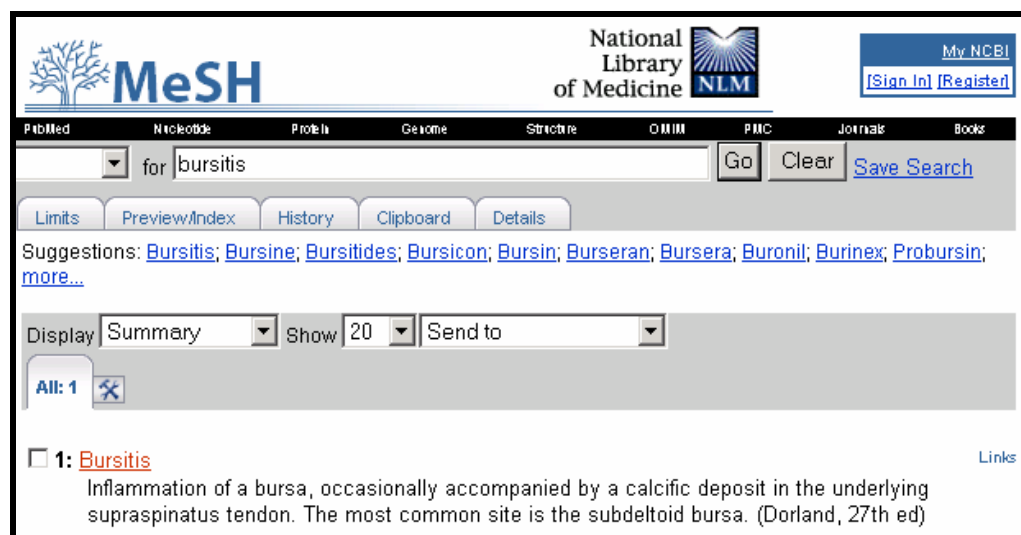
PubMed displays retrieval from this database in the Summary format:

Click on the term to see the Full display.

The **Full** Display provides more information about the term:

Use the check boxes to select subheadings. Click on the Subheadings link to see a list of subheading definitions.

Use these checkboxes to restrict to major topic or to not explode a term.

Entry Terms (synonyms) are provided.

MeSH hierarchy is displayed with searched term in boldface.

☐ **1: Bursitis**   Links
Inflammation of a bursa, occasionally accompanied by a calcific deposit in the underlying supraspinatus tendon. The most common site is the subdeltoid bursa. (Dorland, 27th ed)

Subheadings: This list includes those paired at least once with this heading in MEDLINE and may not reflect current rules for allowable combinations.

☐ blood ☐ chemically induced ☐ classification ☐ complications ☐ diagnosis ☐ diet therapy
☐ drug therapy ☐ economics ☐ enzymology ☐ epidemiology ☐ etiology ☐ genetics
☐ immunology ☐ metabolism ☐ microbiology ☐ nursing ☐ pathology ☐ physiopathology
☐ prevention and control ☐ psychology ☐ radiography ☐ radionuclide imaging ☐ radiotherapy
☐ rehabilitation ☐ surgery ☐ therapy ☐ ultrasonography ☐ urine ☐ veterinary ☐ virology

☐ Restrict Search to Major Topic headings only
☐ Do Not Explode this term (i.e., do not include MeSH terms found below this term in the MeSH tree).

Entry Terms:
- Bursitides
- Adhesive Capsulitis
- Adhesive Capsulitides
- Capsulitides, Adhesive
- Capsulitis, Adhesive

All MeSH Categories
Diseases Category
Musculoskeletal Diseases
Joint Diseases
Bursitis
Periarthritis

Send to Search Box

To specify a search for:
*Citations about the **diagnosis** of bursitis*

1. Select the diagnosis subheading from the Full display screen.
2. Select Search Box with AND from the **Send to** pull-down menu.

The term with any specifications will appear in the Search Box:

To add additional terms to this strategy, continue searching the database and add terms to the Search Box using the Send to Search Box feature.

Now, let's adjust our search to specifically look for articles discussing the ***diagnosis of bursitis in the knee joint***.

Enter **knee joint** in the Query box, click **Go**.

Searching on the next term.

Here's the strategy being built.

This brings you to the Summary display for **Knee Joint**.

Next, click on the **Knee Joint** term link to see the Full display for this term.

Now, let's restrict to citations where the **major focus of the article is knee joints** and then add this term to the strategy we are building:

1. Click in the check box for: Restrict Search to Major Topics only.
2. Select Search Box with AND from the **Send to** pull-down menu.

Now, the search is built and is ready to be run in PubMed. Click the **Search PubMed** button below the Search box:

Click Search PubMed button.

Practice Exercises

Try using the MeSH database to build your searches that require the use of MeSH headings.

1.   Find articles discussing prostate cancer as the main focus of the article. Build this search in the MeSH Database. After searching this in PubMed, use the PubMed Limits to retrieve citations to articles entered in the last 2 years.

2.   Find citations to articles discussing the surgical or drug treatment of osteosarcoma in children (Hint: use subheadings). Limit to studies involving the drug, cisplatin. Also, limit to English language articles.

3.   Find references discussing the economics of community-acquired pneumonia.

4.   Using the MeSH database, find the proper term for mad cow disease. Use the Links menu to search the term in PubMed.

Suggested Answers:

1. Find articles discussing prostate cancer as the main focus of the article. Build this search in the MeSH Database. After searching this in PubMed, use the PubMed Limits to retrieve citations to articles entered in the last 2 years.

MeSH database Summary display:

Click term to reach Full display.

Restricting to Major Topic:

*Once specifications are checked, select "Search Box with AND" from the **Send to** pull-down menu.*

Display [Full ▼] Show [20 ▼] [Send to ▼]

Send to
Text
File
Clipboard
Search Box with AND
Search Box with OR
Search Box with NOT

All: 1 ✖

- If making selections (e.g., Subhea......o Search Box feature to see PubMed records with those specifi...
- Select PubMed under the Links me......r the MeSH Term.
- Select NLM MeSH Browser under t......al information.

Links

☑ **1: Prostatic Neoplasms**
Tumors or cancer of the prostate.

Subheadings: This list includes those paired at least once with this heading in MEDLINE and may not reflect current rules for allowable combinations.

☐ analysis ☐ blood ☐ blood supply ☐ cerebrospinal fluid ☐ chemically induced ☐ chemistry
☐ classification ☐ complications ☐ congenital ☐ diagnosis ☐ diet therapy ☐ drug therapy
☐ economics ☐ embryology ☐ enzymology ☐ epidemiology ☐ ethnology ☐ etiology
☐ genetics ☐ history ☐ immunology ☐ metabolism ☐ microbiology ☐ mortality ☐ nursing
☐ parasitology ☐ pathology ☐ physiopathology ☐ prevention and control ☐ psychology
☐ radiography ☐ radionuclide imaging ☐ radiotherapy ☐ rehabilitation ☐ secondary
☐ secretion ☐ surgery ☐ therapy ☐ transmission ☐ ultrasonography ☐ ultrastructure
☐ urine ☐ veterinary ☐ virology

Check the Major Topic only selection.

☑ Restrict Search to Major Topic headings only
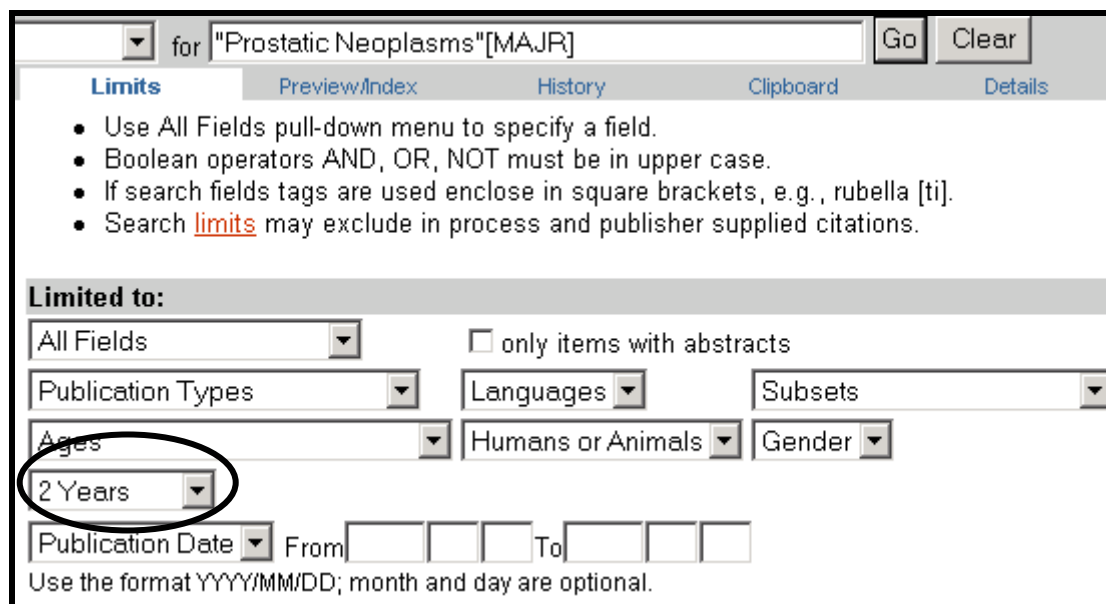☐ Do Not Explode this term (i.e., do not include MeSH terms found below this term in the MeSH tree).

To run search strategy in PubMed, click on the Search PubMed button below Search box:

```
"Prostatic Neoplasms"[MAJR]
```

[Search PubMed]   [Clear]

Now, restrict to those citations entered into the database in the last 2 years using the Limits screen:

2. Find citations to articles discussing the surgical or drug treatment of osteosarcoma in children. (Hint: Use subheadings.) Limit to studies involving the drug, cisplatin. Also, limit to English language articles.

Choosing appropriate subheadings from the Full display for Osteosarcoma:

*Once specifications are checked, select "Search Box with AND" from the **Send to** pull-down menu.*

Check the two appropriate subheadings.

Searching Cisplatin and sending the term to the search box as you build your strategy:

Once term is selected, select "Search Box with And" from the Send to menu.

Check the term.

Now, let's take this strategy into PubMed and then continue our search from PubMed using the Limits feature.

Back in PubMed using the Limits feature:

3. Find references discussing the economics of community-acquired pneumonia.

Selecting the subheading of economics to attach to the MeSH heading, pneumonia from the Full display in the MeSH database:

Searching for the next term:

Read the Scope Note. If relevant, click on the term to see the Full Display for more information including subheadings.

Final strategy ready to send to PubMed:

4. Using the MeSH database, find the proper term for mad cow disease. Use the Links menu to search the term in PubMed.

N O T E S

N O T E S

Search Rules and Syntax

Boolean Operators

Boolean logic is a system of logic that symbolically represents relationships between entities.

- The Boolean operators AND, OR, NOT must be entered in uppercase letters.
- Boolean connectors are processed left to right.

Logical Operator **AND:**
- Used to retrieve a set in which each citation contains all search terms.

Example: **salmonella AND hamburger**

Logical Operator **OR:**
- Used to retrieve a set in which each citation contains at least one of the search terms.
- Use **OR** when you want to pull together articles on similar topics.

Example: **football OR hockey OR soccer**

Logical Operator **NOT**
- Retrieves a set from which citations to articles containing specified search terms following the **NOT** operator are eliminated.
- Use the **NOT** operator with caution; you might eliminate relevant articles.

Example: **arthritis NOT letter**

Nesting

- To change the order in which terms are processed, enclose the terms(s) in parentheses. The terms inside the set of parentheses will be processed as a unit and then incorporated into the overall strategy. **This is called nesting.**

Example: *shoulder joint [mh] AND (baseball [mh] OR hockey [mh]) AND arthroscopy [mh]*

Search Field Descriptions

- Search fields can be specified using PubMed's search field tags. A list of the available field names, abbreviations, and brief field descriptions may be found in PubMed Help under Search Field Descriptions and Tags – not all searchable fields are included in this workbook section.

- Each search term should be followed with the appropriate search field tag, which indicates which field will be searched. The search field tag must follow the term.
    Correct entry: aromatherapy [mh]
    Incorrect entry: [mh] aromatherapy

- Search field tags must be enclosed in **square brackets**.

- Case and spacing do not matter: ice [mh] = Ice [mh] = ICE [MH]

Terms entered with a search tag (e.g., [mh]; [majr]; [tw]) will not generate alternative spellings (PubMed's spell check feature).

MeSH headings [MH]

- MeSH headings can be qualified using two search field tags:
          [mh]   to search a MeSH heading
          [majr] to search a MeSH heading that is a major topic of an article

- PubMed **automatically** searches the MeSH headings as well as the more specific terms beneath that heading in the MeSH hierarchy; i.e., **the term is exploded**.

- To turn off automatic explosion of MeSH headings, use one of the following tags:
          [mh:noexp] or [majr:noexp]

Example: *thromboembolism [majr:noexp]*

Alternatively, consider using the "Do not explode" selection from the Detailed Display in the MeSH Database.

Searching with MeSH headings will exclude in process and publisher-supplied citations, as they are not indexed with MeSH.

Subheadings [SH]

- You can directly attach subheadings to MeSH headings using the format MeSH heading/subheading.

- Two letter abbreviations for subheadings or the full subheading name may be used.

Examples:
      thromboembolism/pc [mh]
      thromboembolism/prevention and control [mh]
      toes/in [majr]
      toes/injuries [majr]

- Only one subheading may be attached to a MeSH heading at a time. To attach multiple subheadings, combine each MeSH/subheading combination with the OR connector or use the MeSH Browser.

Example: *Thromboembolism/pc [majr] OR thromboembolism/di [majr]*

- For a MeSH/subheading combination, PubMed always explodes the MeSH term and also searches the subheading and its grouping if there is one.

In the example below, the subheading therapy or members of the therapy grouping (e.g., diet therapy) will be attached to the MeSH term (hypertension) or one of its indentions (e.g., hypertension, malignant).

Example: *hypertension/th*

Hypertension with its indentions: Subheading grouping for therapy:

Hypertension
    Hypertension, Malignant
        Hypertensive Encephalopathy
    Hypertension, Portal
        Esophageal and Gastric Varices
    Hypertension, Pulmonary
        Persistent Fetal Circulation Syndrome
    Hypertension, Renal
        Hypertension, Renovascular
        Nephrosclerosis

therapy
    diet therapy
    drug therapy
    nursing
    prevention and control
    radiotherapy
    rehabilitation
    surgery
        transplantation

A list of subheadings and subheading groupings appears in PubMed's Help.

To **turn off both** the MeSH heading explosion and subheading groupings, you would enter:

> hypertension/th [mh:noexp]
> hypertension/th [majr:noexp]

These search for **only** the subheading therapy attached to **only** the MeSH term hypertension (with "majr," only as the main point).

- You may also choose to "free-float" a subheading with a MeSH heading using the Boolean AND and the subheading field tag of [sh]. This is typically done when you want to search for a subheading that cannot be applied to the MeSH heading you are also searching.

Example:

child rearing [mh] AND complications [sh]

- To **turn off the subheading grouping**, use the tag [sh:noexp]. You may *only* do this when "free-floating" a subheading.

Pharmacologic Action [PA]

- Use of a term with the Pharmacologic Action [pa] field tag instructs PubMed to OR together terms from a list made up of a PA term and the drug/substance terms known to have that action.
- Any MeSH terms on the list are searched with the no explode specification, [mh:noexp], so as not to include possible indentions of the term that might not share the pharmacologic action.

Why?

- Use this search method when you want to include retrieval for all MeSH terms with a particular pharmacologic action.

Example:

neoplasms [mh] AND antioxidants [pa]

If you enter a MeSH term that happens to be a PA term, without using a field tag, PubMed will search the term as [mh], [pa], and [tw].

Truncation Symbol

- The asterisk (*) is PubMed's truncation symbol.

Text Words [TW]

- Terms or numbers that are searched with the Text Words [tw] field tag will be searched in the following fields:

  - Title
  - Abstract
  - MeSH headings and Subheading (includes single words and phrases)
  - Other Terms field
  - Chemical Names of Substances
  - Secondary Source Identifier (The SI field identifies other data sources, databanks and accession numbers of molecular sequences discussed in MEDLINE articles.)
  - Personal Name as Subject

Other Terms [OT]

- The Other Terms field contains largely non-MeSH subject terms.
- For OLDMEDLINE citations, this field contains the original index terms. These terms are not updated.
- The OT field is searchable with the Text Word and Other Term search tags.

Example:

tuberculin test [ot]

Title Word Searching [TI]

- Enter significant terms (numbers, too) from the title of an article.
- Each word must be followed by the [TI] search field tag.
- Words should be combined with the AND operator.

Example: *I'm looking for an article. The title is "Memory improvement following cardiac transplantation".*

Query box: memory [ti] AND improvement [ti] AND cardiac [ti] AND transplantation [ti]

Result:

☐ 1: Roman DD, Kubo SH, Ormaza S, Francis GS, Bank AJ, Shumway SJ.   Related Articles, Links

Memory improvement following cardiac transplantation.
J Clin Exp Neuropsychol. 1997 Oct;19(5):692-7.
PMID: 9408799 [PubMed - indexed for MEDLINE]

Search Tip: Consider using the Single Citation Matcher available from the sidebar. When using Single Citation Matcher, you do not have to tag each title word.

Author Searching [AU]

- Use the Last Name + Initial(s) format. The [au] tag is optional.
- If the first initial is included, PubMed automatically truncates the author's name to account for varying initials.

Example: *o'brien j [au]*

- Two situations where the [au] tag is *required*:

1.   To **turn off automatic truncation of an author's name,** surround the author's name with double quotes *and* use the [au] search tag.

Note only occurrences of ***O'Brien J****.*

2.   Use the [au] tag when entering only a last name. Example: *woods [au]*

Full Author Searching

Searching by full author name limits to citations to articles published **from 2002 forward, and to journals that publish using the full names of authors**. For comprehensive results, use conventional author searching, i.e., lastname + initial(s).

- Unlike conventional author searching (e.g., smith js), full author searching can be entered in natural or inverted order and you may optionally use the [fau] tag:

  > julia s wong
  > wong julia s

- When searching a full name using the inverted order, a comma following the last name is generally optional, omit periods after initials, and put all suffixes, e.g., Jr, at the end.

  For example, to search for the author Bruce J. Herron, you may use any of the following formats:

  > herron, bruce j
  > herron bruce j
  > bruce j herron

- For some names, however, it is necessary to distinguish which name is the last name by using the comma following the last name:

  > ryan, james
  > james, ryan

- Full author name searching allows for automatic truncation of the forename. If you don't know the middle initial, enter only the last and first names:

  > herron bruce

- Names with multiple middle initials, e.g., Peter F H Schwab, have a space in between the initials. Use any of the following searching formats:

  > peter schwab
  > peter f schwab
  > peter f h schwab

- Some full author names occur in the database in more than one way. This is an entry where the name, Castro is part of the last name:

  FAU - Castro Cabezas, Manuel

  This is an entry from another citation for the same author, where Castro is part of the forename:

  FAU - Cabezas, Manuel Castro

  In order to retrieve both occurrences search this name as:

  manuel castro cabezas

- You can browse full author names in the **Full Author Name index** available on the **Preview/Index** screen. Select Full Author Name on the Fields pull-down menu, enter a last name in the box, and click on Index.

- Author names display in the Summary, Abstract, and Citation formats using the data from the Author field, i.e., last name + initial(s). The full author names can be seen in the MEDLINE format.

First Author Searching

- Enter an author name followed by the first author search tag, [1au] .

- First author searching uses data from the Author field, so use the lastname + initial(s) format to enter a name.

- Alternatively, you can search by first author in the Single Citation Matcher.
- You can browse the First Author Index on the Preview/Index screen.
- This feature works with personal author names, *not* corporate author names.

Corporate Author [CN]

- Use the [cn] tag to search for corporate authorship of an article. Search the whole name or individual words from the name.

Examples: *american dental association [cn]*
american [cn] AND dental [cn] AND association [cn]

Notice that the Corporate Author appears after a semi-colon following the author names, or, if there are no author names, in that part of the citation.

This field was added in 2001; however some earlier citations may include this field. Citations indexed pre-2000 and some citations indexed in 2000-2001 display corporate authors at the end of the title field. For comprehensive searches, consider including terms and/or words searched in the title field. Example:
american dental association [cn] OR american dental association [ti]

Personal Name as Subject [PS]

- Use the [ps] tag to search for citations to articles about a named individual. The name is searched in the conventional author searching format: lastname + initial(s)

The Personal Name as Subject field is *not* available from the Search Field pull-down menu in Limits.

Example: *lincoln a [ps]*

Journal Title [TA]

- Search for journals using the full journal title, or the MEDLINE abbreviation, or the ISSN.

    Examples: journal of biological chemistry [ta]
                            j biol chem [ta]
                            0021-9258 [ta]

All single-word journal titles should be tagged with [ta].

Example: *cell [ta]*

Languages [LA]

- The language the article is written in.
- First three letters of the language may be used as an abbreviation when searching.
  (There are a few exceptions. Example: JPN for Japanese)
  Language values may also be spelled out.

> Examples: common cold [mh] AND chi [la]
> common cold [mh] AND chinese [la]
> common cold [mh] AND por [la]
> common cold [mh] AND portuguese [la]

Commonly-searched **Languages** are available from the pull-down menu in Limits. The full list of **Languages** can be viewed and searched using the Preview/Index feature.

Entrez Date [EDAT]

- The Entrez Date field contains the date that the record was initially added to PubMed.
- Search this in the format yyyy/mm/dd [edat]

Example: *1999/07/10 [edat]*

- Month and day are optional:

Example: *1999 [edat]*
Example: *1999/07 [edat]*

Be aware that the Entrez Date will remain unchanged and is not updated to reflect the date a publisher-supplied record is elevated to in process, or when an in process record is elevated to MEDLINE status.

The Entrez Date pull-down menus in Limits make searching and ranging this date easy.

Publication Date [DP]

- The date that the article was published in the format of YYYY/MM/DD.
- Use the [dp] search tag.

Example: *1984/10/06 [dp]*

- Month and day are optional:

Example: *1984/10 [dp]*
Example: *1984 [dp]*

Date Ranging (EDAT and DP)

- The colon (:) is used between ranging values.

- To search on Publication Date from 1993 to 1997, enter:

   1993:1997 [dp]

- To search on a date, use the format YYYY/MM/DD

Example 1:   *Search on citations entered into PubMed from Jan 16, 1998 to Feb 13, 1998*

   1998/01/16:1998/02/13 [edat] where edat is the abbreviation for Entrez Date

Example 2:   *Search on citations published in January or February 1998*

   1998/01:1998/02 [dp]

Search Tip: The Publication Date fill-in-the-blank selection in Limits makes searching and ranging dates easy.

Publication Type [PT]

- Describes the type of material the citation represents
- Examples: Twin Study, News, Review, Clinical Trial, Retracted Publication, Letter
- Use the [pt] tag for searching

Example: *vascular diseases [majr] AND twin study [pt]*

PubMed's Help includes a listing of all available Publication Types. Publication Types are also included in the MeSH Database.

Commonly-searched **Publication Types** are available from the pull-down menu in Limits. Use the Preview/Index feature to view and search Publication Types.

Place of Publication [PL]

- This field indicates the cited journal's country of publication.
- Use the [pl] tag.

Example: *aids AND nigeria [pl]*

Geographic Place of Publication regions are not searchable. In order to retrieve records for all countries in a region (e.g., North America), it is necessary to OR together the countries of interest.

Subset [SB]

- Allows you to limit your search to various PubMed subsets.
- Use the [sb] tag for searching
- Available values include:

Citation Status Subsets	Subject Subsets	PubMed Central	Full Text
medline [sb]	aids [sb]	pubmed pmc local [sb]	free full text [sb]
in process [sb]	bioethics [sb]		full text [sb]
publisher [sb]	cam [sb]		
oldmedline [sb]	(Complementary		
pubmednotmedline[sb]*	Medicine)		
	cancer [sb]		
	history [sb]		
	space [sb]		
	systematic [sb]		
	(Systematic		
	Reviews)		
	tox [sb]		
	(Toxicology)		

*This retrieves citations with the status tag, [PubMed].

Example: *hospice care AND aids [sb]*

Each Subject Subset uses its own specialized search strategy to aid in the retrieval of citations on these topics. You may view these strategies at http://www.nlm.nih.gov/bsd/pubmed_subsets.html.

Secondary Source Identifier [SI]

- Identifies a secondary source that supplies information, e.g., other data sources, databanks and accession numbers of molecular sequences (e.g., GenBank; ClinicalTrials.gov – beginning in July 2005)
- Use the [si] search tag.

Examples: genbank/af113832 [si]
clinicaltrials.gov/nct00000419 [si]
clinicaltrials.gov [si]

- The field is composed of a source followed by a slash followed by an accession number.

Unique Identifier Searching

- To search using the PubMed Unique Identifier (PMID), type in the number with or without the search field tag [uid].

Example: *11073054*

- You can search for several Unique Identifier numbers by entering each number in the query box separated by a space, PubMed will OR them together. Do *not* enter the OR connector.

Example: *7715939 11073054*

Unique Identifiers as entered in the query box.

PubMed finds the 2 citations.

- To search a **Unique Identifier in combination with other terms** you *must* use the search field tag, [uid].

Example: *smith [au] AND (10403340 [uid] OR vaccines [mh])*

Affiliation [AD]

- May include the institutional affiliation and address (including email address) of the first author of the article as it appears in the journal.
- Use the [ad] search tag.
- This field can be used to search for work done at specific institutions.

Example: *cleveland [ad] AND clinic [ad]*

Grant Number [GR]

- Research grant numbers, contract numbers, or both that designates financial support by an agency of the US PHS (Public Health Service).
- Use the [gr] search tag.

Example: *LM05545/lm/nlm [gr]*

- The three pieces of the grant number (e.g., LM05545 – number; LM – acronym; and NLM – institute mnemonic) are each individually searchable using the [gr] tag.

Example: *nlm [gr]*

PubMed's online Help links to a table listing Institute Abbreviations and Acronyms.

Practice Exercises

[The practice exercises may be done outside of the monitored class time.]

Use search field tags when doing these exercises. Remember you can use the History feature to obtain search numbers to combine searches.

1. Find references to articles discussing decision-making by nurse practitioners. The phrase decision-making should be in the title.

2. Find references to articles about Winston Churchill.

3. Find references to articles indexed with the MeSH headings for video display terminals and carpal tunnel syndrome. Use the Related Articles feature to find similar articles. Combine the list of Related Articles with the publication type, Review. (Hint: Use History.)

4. Using the MeSH database, find citations to articles about the prevention of chickenpox or measles during pregnancy. Combine these results to retrieve English language articles that have abstracts on the PubMed citation.

Suggested Answers

1. Find references to articles discussing decision-making by nurse practitioners. The phrase decision-making should be in the title.

```
   ▼   for #12 AND #13                          Preview  Go  Clear
        Limits        Preview/Index    History      Clipboard       Details
 • Search History will be lost after eight hours of inactivity.
 • To combine searches use # before search number, e.g., #2 AND #6.
 • Search numbers may not be continuous; all searches are represented.
 • Click on query # to add to strategy

 Search                    Most Recent Queries               Time     Result
   #14 Search #12 AND #13                                  15:53:07       28
   #13 Search decision-making [ti]                         15:52:47     6263
   #12 Search nurse practitioners                          15:52:37    10787
```

2. Find references to articles about Winston Churchill.

```
churchill w [ps]                                    Go
```

3. Find references to articles indexed with the MeSH headings for video display terminals and carpal tunnel syndrome. Use the Related Articles feature to find similar articles. Combine the list of Related Articles with the publication type, Review. (Hint: Use History.)

History screen:

Final History screen:

4. Using the MeSH database, find citations to articles about the prevention of chickenpox or
    measles during pregnancy. Combine these results to retrieve English language articles that
    have abstracts on the PubMed citation.

Full display for the MeSH term Chickenpox with the subheading prevention & control selected:

Select "Search
Box with
AND" from the
Send to *menu*
to begin to
build your
strategy.

Next, search measles in the MeSH database and review the Full display. Select the prevention & control subheading:

*Select **Search Box with OR** from the **Send to** menu.*

Next, enter pregnancy. No need to look at the Full display, check the term and select **Search Box with AND** from the **Send to** menu to AND this term into your strategy.

*Select "**Search Box with AND**" from the Send to menu.*

Click in the checkbox to select the term.

Next, click on the **Search PubMed** button to run the strategy in PubMed.

From the Results screen, click on **Limits**, select English from the **Languages** pull-down menu, and select the box next to **only items with abstracts**. Click the **Go** button.

Alternatively, click on the **PubMed Search** button from the MeSH Browser screen to run the strategy in PubMed. From the Details screen, add - AND eng [la] AND hasabstract. Click the **Search** button.

Clinical Queries

- Available on PubMed's sidebar
- There are 3 search filters available from this page:
    Search by Clinical Study Category
    Find Systematic Reviews
    Medical Genetics Searches

Search by Clinical Study Category
This specialized search query is intended for clinicians and has built-in search "filters" based on research done by R. Brian Haynes, M.D., Ph.D. at McMaster University in Canada.

Five study categories or filters are provided:
- etiology
- diagnosis
- therapy
- prognosis
- clinical prediction guidelines

Two emphasis categories or filters are provided:
- narrow, specific search -- will get more precise, relevant citations but less retrieval
- broad, sensitive search -- includes relevant citations but probably some less relevant; will get more retrieval

Example: *Find citations on having a rash with a fever using the defaults of therapy and narrow, specific search.*

Find Systematic Reviews

- This feature is provided to help clinicians locate systematic reviews and similar articles.
- It retrieves systematic reviews, meta-analyses, reviews of clinical trials, evidence-based medicine, consensus development conferences, and guidelines. Citations from journals specializing in clinical review studies are also included.

Example: *Find Systematic Reviews on inhalation therapy for pneumonia.*

Enter search terms in the query box.

Find Systematic Reviews   ↑

For your topic(s) of interest, this search finds citations for systematic reviews, meta-analyses, reviews of clinical trials, evidence-based medicine, consensus development conferences, and guidelines.

For more information, see Help. See also related sources for systematic review searching.

Search inhalation therapy pneumonia   [Go]

Search Tip: This subset can be combined directly with other search terms using AND systematic [sb]. For example, lyme disease AND systematic [sb].]

Medical Genetics Searches

- Finds citations related to various topics in medical genetics
- Default is to **All** topics. Click on All check box to deselect; then click on topic(s) of interest.
- Developed in conjunction with the staff of GeneReviews: Genetic Disease Online Reviews at GeneTests, University of Washington, Seattle.

Example: *Find citations about sickle cell anemia using the Medical Genetics Searches categories : Genetic Counseling ; Genetic Testing*

Enter search terms in the query box.

Select topics of interest.

Medical Genetics Searches   ↑

This search finds citations and abstracts related to various topics in medical genetics. See the filter table for details.

Search sickle cell anemia   [Go]

Category

☐ **All**
☐ Diagnosis
☐ Differential Diagnosis
☐ Clinical Description
☐ Therapy
☒ Genetic Counseling
☐ Molecular Genetics
☒ Genetic Testing

Special Queries – Health Services Research (HSR) Queries

Why?
- Provides a search interface to find PubMed citations relating to **health care quality** and **health care costs**

Where?
- Click on **Special Queries** from PubMed's sidebar
- Click on **Health Services Research (HSR) Queries** from the Special Queries page

*Click on "**definitions**" to display helpful explanations of the HSR categories.*

PubMed Health Services Research (HSR) Queries

This page provides specialized PubMed searches on healthcare quality and costs.

After running one of these searches, you may further refine your results using PubMed's <u>Limits</u> feature.

Results of searches on this page are limited to specific health services research areas (see <u>definitions</u>). For comprehensive searches, use <u>PubMed</u> directly.

Additional PubMed search filters are available, including a filter for <u>Systematic Reviews</u>.

Search by HSR Study Category

This search finds citations that correspond to a specific health services research study category. The search may be either broad and sensitive or narrow and specific. The search filters are based on the work of <u>Haynes RB et al</u>. See the <u>filter table</u> for details.

Enter search terms here.

Search asthma   Go   Clear

Choose appropriate category and scope.

Category
- ⦿ Appropriateness
- ○ Process assessment
- ○ Outcomes assessment
- ○ Costs
- ○ Economics
- ○ Qualitative research

Scope
- ⦿ Broad, sensitive search
- ○ Narrow, specific search

N O T E S

Single Citation Matcher

The **Single Citation Matcher** allows you to:
- find a citation or an issue of a journal using information such as a journal name, volume, issue, page number, publication date, title words, and author name
- search for the first author of an article

How to Get There

Click on **Single Citation Matcher** on the PubMed sidebar.

Example: *Biometals, 2001, one author is Shuhama*

- Enter as much information as you know; only one field is required.
- Click on the **Search** button

> - The Journal search box includes an **autocomplete feature**. This feature will suggest titles as you enter a title abbreviation or full title.
> - When you see the title you are looking for, you can stop entering and select the title.
> - Titles displayed by the autocomplete menu are in a ranked order based on the number of citations in PubMed.

Take Note:

PubMed Single Citation Matcher

| Nucleotide | Protein | Genome | Structure | OMIM | PMC |

- Use this tool to find PubMed citations. You may omit any field.
- Journal may be the full title or the title abbreviation.
- For first author searching, use smith jc format.

Journal: `Biometals : an international journal on the role of metal ions in bi`

Date: `2001` (month and day are optional)

Volume: `____` Issue: `____` First page: `____`

Author name (see help) `shuhama` ☐ Only as first author

Title words: `_____`

Go | Clear

Result:

If you know four or more significant words from the title -- that is often all that is needed to locate a reference.

Example: *You are looking for the citation for an article entitled, "Where does it hurt"? Pain localization in osteoarthritis in the knee."*

- Enter significant words from the title.
- Click on the **Search** button.

Result:

First Author Searching via the Single Citation Matcher

*Use the lastname +
initial(s) format.
Notice the
autocomplete feature.*

*Click the check box,
"Only as first author."*

Result:

The **Single Citation Matcher** can also be used to get a "Table of Contents" listing of items from a particular issue of a journal in PubMed.

The **Batch Citation Matcher** allows you to retrieve the PubMed IDs for many articles all at once.

The Batch Citation Matcher is primarily a tool used by publishers to check their electronic submissions and links.

Practice Exercises

[The practice exercises may be done outside of the monitored class time.]

Try to find the references using the following information and PubMed's Single Citation Matcher:

1.   Arthritis Rheum
1982
page 1271-7

2.   R. G. Johnson
Journal of Thoracic and Cardiovascular Surgery
Jan 1998
Page 148

3.   V. Lee
Biochemical Pharmacology
Vol. 29
Issue 14

4.   Vojvoda
Lancet
Jan. 6

5.   A. M. Adelman as the first author
Hint: See 3rd bullet on Single Citation Matcher page.

Suggested Answers

Try to find the following references using the following information and PubMed's Single
Citation Matcher:

1. *Arthritis Rheum*
   1982
   page 1271-7

Enter information about the article you wish to find.

Journal: arthritis rheum

Date: 1982

Volume: [ ] Issue: [ ] First page: 1271

Author's last name and initials (e.g., Smith BJ) [ ]

Title words: [ ]

☐ 1: Tan EM, Cohen AS, Fries JF, Masi AT, McShane DJ, Rothfield NF, Schaller JG, Related Articles, Links
   Talal N, Winchester RJ.
   The 1982 revised criteria for the classification of systemic lupus erythematosus.
   Arthritis Rheum. 1982 Nov;25(11):1271-7.
   PMID: 7138600 [PubMed - indexed for MEDLINE]

2. R. G. Johnson
   Journal of Thoracic and Cardiovascular Surgery
   Jan 1998
   Page 148

Enter information about the article you wish to find.

Journal: journal of thoracic and cardiovascular surg

Date: 1998/01

Volume: [ ] Issue: [ ] First page: 148

Author's last name and initials (e.g., Smith BJ) johnson rg

Title words: [ ]

☐ 1: Cohn WE, Suen HC, Weintraub RM, Johnson RG. Related Articles, Links
   The "H" graft: an alternative approach for performing minimally invasive direct coronary
   artery bypass.
   J Thorac Cardiovasc Surg. 1998 Jan;115(1):148-51.
   PMID: 9451058 [PubMed - indexed for MEDLINE]

3. V. Lee
Biochemical Pharmacology
vol. 29
issue 14

Enter information about the article you wish to find.

Journal: biochemical pharmacology

Date:

Volume: 29   Issue: 14   First page:

Author's last name and initials (e.g., Smith BJ) lee v

Title words:

☐ 1: DiCioccio RA, Srivastava BI, Rinehart KL Jr, Lee VJ, Branfman AR, Li LH.   Related Articles, Links
Structure-activity relationship, selectivity and mode of inhibition of terminal
deoxyribonucleotidyltransferase by streptolydigin analogs.
Biochem Pharmacol. 1980 Jul 15;29(14):2001-8. No abstract available.
PMID: 6985561 [PubMed - indexed for MEDLINE]

4. Vojvoda
Lancet
Jan. 6

*Without the
publication year,
the month and day are
not helpful.
Fill in the form with
the significant
information you have.*

Enter information about the article you wish to find.

Journal: lancet

Date:

Volume: Issue: First page:

Author's last name and initials (e.g., Smith BJ) vojvoda

Title words:

☐ 1: Vojvoda D, Grimmell K, Sernyak M, Mazure CM.   Related Articles, Links
Monozygotic twins concordant for response to clozapine.
Lancet. 1996 Jan 6;347(8993):61. No abstract available. Erratum in: Lancet 1996 Apr 13;347
(9007):1054. Lancet 1996 Feb 17;347(8999):482.
PMID: 8531572 [PubMed - indexed for MEDLINE]

5. A. M. Adelman as the first author. Hint: See 3rd bullet on Single Citation Matcher page.

PubMed Single Citation Matcher

Nucleotide	Protein	Genome	Structure	OMIM

- Use this tool to find PubMed citations. You may omit any field.
- Journal may be the full title or the title abbreviation.
- For first author searching, use smith jc format.

Journal: [   ]

Date: [yyyy/mm/dd] (month and day are optional)

Use the last name + initial(s) format.

Volume: [   ]   Issue: [   ]   First page: [   ]

*Remember to check the "**Only as first author**" box.*

Author name (see help) [adelman am]   ☑ Only as first author

Title words: [   ]

Go Clear

All: 10   Review: 3   ✖

Items 1 - 10 of 10   One page.

☐ **1:** Adelman AM, Daly MP.   Related Articles, Links

Initial evaluation of the patient with suspected dementia.
Am Fam Physician. 2005 May 1;71(9):1745-50. Review.
PMID: 15887453 [PubMed - indexed for MEDLINE]

☐ **2:** Adelman AM, Hall LW.   Related Articles, Links

Clinical inquiries. How often is coughing the presenting complaint in patients with gastroesophageal reflux disease?
J Fam Pract. 2002 Mar;51(3):211. Review. No abstract available.
PMID: 11978229 [PubMed - indexed for MEDLINE]

☐ **3:** Adelman AM, Revicki DA, Magaziner J, Hebel R.   Related Articles, Links

Abdominal pain in an HMO.
Fam Med. 1995 May;27(5):321-5.
PMID: 7628653 [PubMed - indexed for MEDLINE]

☐ **4:** Adelman AM, Smith SL.   Related Articles, Links

Major issues in geriatrics over the last five years.
J Am Geriatr Soc. 1994 Aug;42(8):908. No abstract available.
PMID: 8046211 [PubMed - indexed for MEDLINE]

Journals Database

The PubMed Journals database allows you to look up information about a PubMed journal and search for that title. You can search for a journal using:

- journal title
- MEDLINE/PubMed title abbreviation
- NLM ID (NLM's unique journal identifier)
- ISO (International Organization for Standardization) abbreviation
- print and electronic International Standard Serial Numbers (pISSNs and eISSNs)

How to get there:

- Clicking on the Journals Database link from the PubMed sidebar takes you to Journals Database screen:
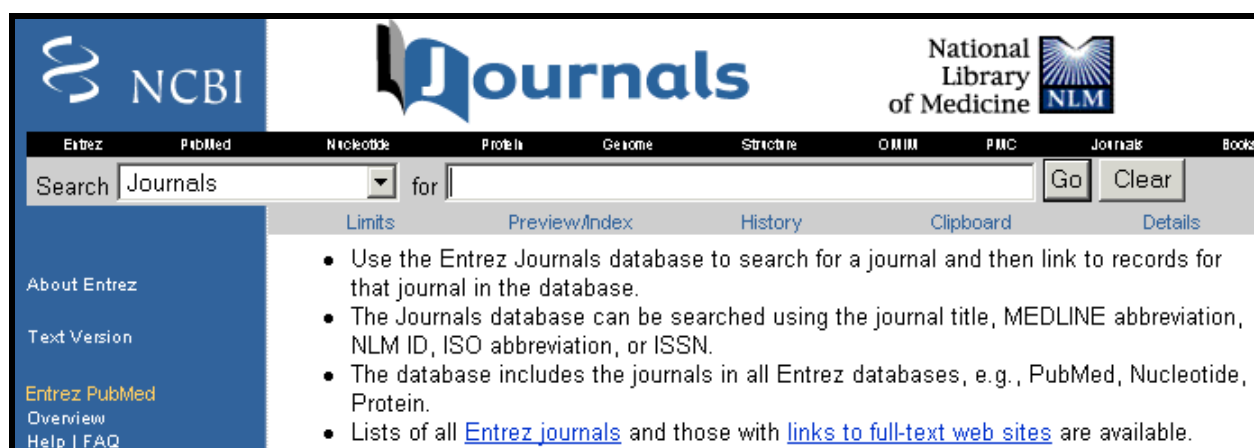
The Journals database includes journals in **all** Entrez databases (e.g., PubMed, Nucleotide, Protein).

Search | Journals ▼ | for | diabetes | Go | Clear

Result:

*Use the **NLM ID** to link to **LocatorPlus**, or the **NLM Catalog** link for further information about the journal.*

Display | Summary ▼ | Show: | 20 ▼ | Send to | Text ▼

All: 20 ✖

Items 1 - 20   One page.

☐ **1:** Diabetes.
   pISSN: 0012-1797
   MEDLINE Abbr: Diabetes
   ISO Abbr: Diabetes
   NLM ID: 0372763

*Use the **PubMed** link from the Links pull-down to retrieve citations for an individual journal in PubMed.*

Links
② **Links** ⊠
▶ PubMed
▶ Protein
▶ Nucleotide
▶ Single Citation Matcher
▶ NLM Catalog
Links

*Use the **Single Citation Matcher** link to place the journal title in the journal title box of the Single Citation Matcher.*

Take Note:

Retrieval display order is alphabetical, except if term has an exact match, which will display first.

Suggestions offered

- The Journals Database also suggests journals based on your search terms.
- The suggestions may include titles retrieved by the search but will likely include additional titles not retrieved.
- If you find a journal of interest in the list of suggested journals, you can use the link on the title to go directly to its record.

The first suggestion is the proper title.

Click on this link to go to the Journals database record for this title.

Building a PubMed query for multiple journals

*Click in the **checkbox** to the left of desired journal title.*

*Choose **Search Box with OR** from the **Send to** menu.*

*Once finished building your search, click **Search PubMed** button.*

This multiple journal search will, like all PubMed searches, become part of your PubMed History. You can then combine that History number with additional terms or other History search numbers for more customized queries.

Search Tip:

This feature facilitates the task of limiting searches to a specific group of journals.

Journals Lists

- On the Journals database screen, click on **links to full-text web sites** for a list of full-text journals available on the Web to which PubMed is currently linked.

  Some journals may require that you register, subscribe, or pay a fee in order to view the full-text of an article.

  Contact the journal publishers as noted on their individual Web sites for specific access information.

- Click on **Entrez journals** to FTP a list of all journals that are included in PubMed in the GNU Zip, Uncompressed, UNIX Compress, or PKZIP format.